



# Απο τον πάγκο του εργαστηρίου στον χώρο των επιχειρήσεων

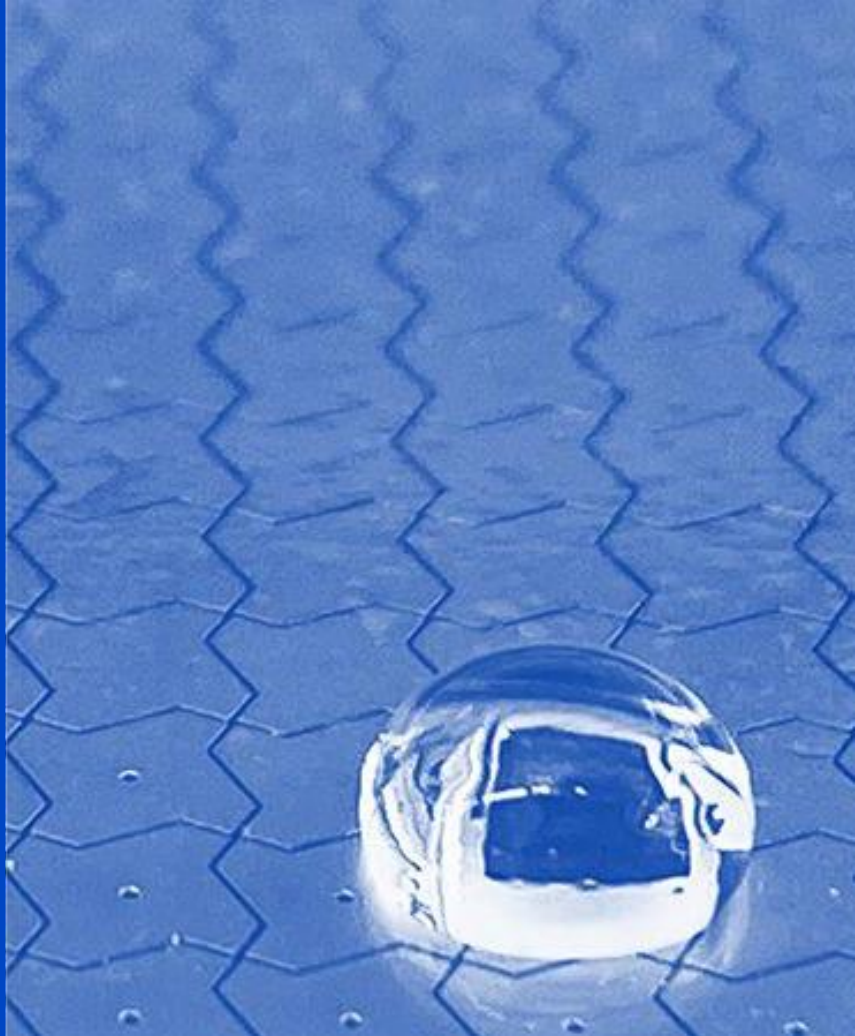
Φαίη Χριστοδούλου, PhD  
Επικεφαλής Επιστημονική Υπεύθυνος, Miroculus

6 Οκτωβρίου, 2022



# Introducing Miroculus

- **Founded in 2015**
- **Headquartered in San Francisco**
- **Launched Miro Canvas Product in March 2022**
- **Broad IP portfolio: 40+ patent applications  
(8 issued)**





# Miro Canvas System

Compact, versatile,  
personal digital  
microfluidics system



Disposable  
electronics-free  
cartridge

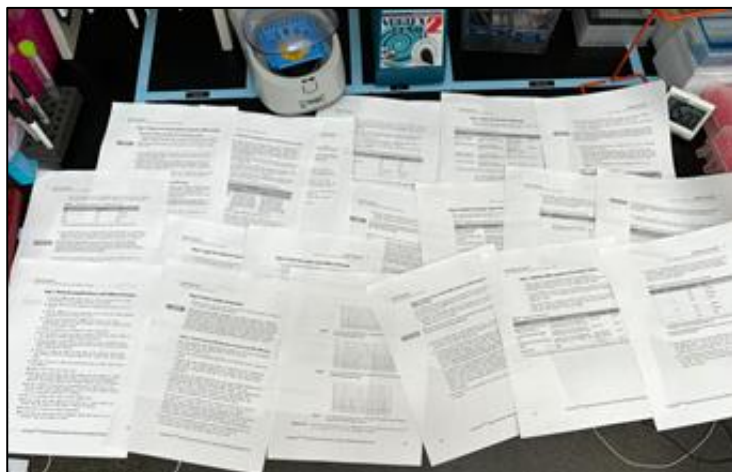
Reagent kits for  
key applications



# Miro Canvas

From lengthy protocols to load and go automation

From:

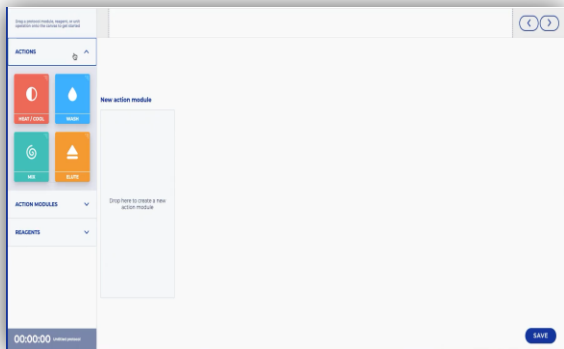


To:



# A Programmable Platform For Lab Automation

## Design



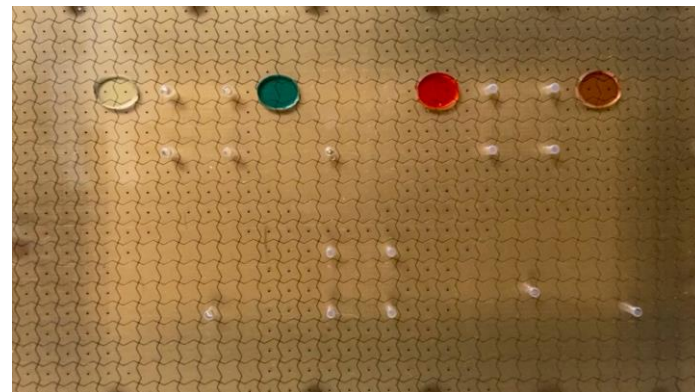
Intuitive Software for programming biology powered by AI - Drag and drop 4 canonical actions

## Load



Reagent agnostic and a universal cartridge.

## Come back when ready



Core technology protected by over 40 patent applications with 8 issued already

***“Set it and forget it” - The Broad Institute***



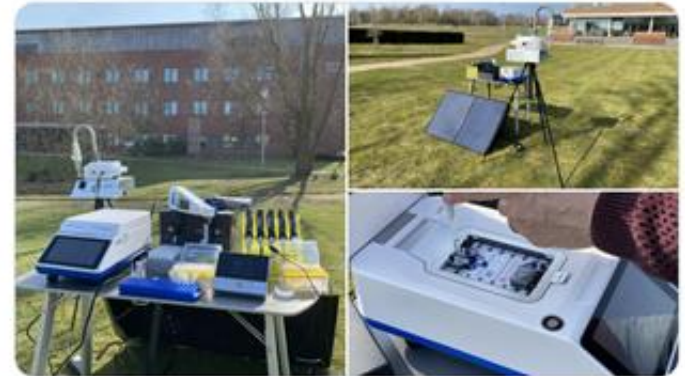
# Nanopore sequencing of pathogens in the field

## Portability allows in situ library preparation and sequencing



**Richard Leggett** @richardmleggett · 23h

Here's the pics of us using the @Miroculus Miro Canvas for in-field (or in-a-field) @nanopore sample processing which we just showed at the Science Simplified event.



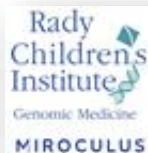
**Miroculus** @Miroculus · 24 mar.

Dr. Darren Heavens (Earlham Inst.) showing photo of Miro Canvas, with a battery and solar panel, doing library prep and #nanopore sequencing out out in the field!



# Rady Children's Hospital

## Rapid Whole Genome Sequencing for diagnosis of critically ill infants



### Rapid Whole Genome Sequencing (rWGS) on a novel digital microfluidic system: "on demand" personal automation for diagnosis of critically ill infants

KATE CUNNINGHAM<sup>1</sup>, YAN DING<sup>2</sup>, ADAM BARNER<sup>1</sup>, SERGEY BATALOV<sup>1</sup>, ALMA JOHNSON<sup>1</sup>, EDUARDO CERWANTES<sup>1</sup>, EUGENIA CARVAJAL<sup>1</sup>, CHENG-CHANG LEE<sup>1</sup>, JULIA YOO<sup>1</sup>, SEVERINE MARGERIDON<sup>1</sup>, MAIS JEBRAIL<sup>1</sup>, WENDY BENSON<sup>1</sup>, FOTEINI CHRISTODOULOU<sup>1</sup>, STEPHEN KINGSMORE<sup>1\*</sup>

<sup>1</sup>Miroculus, Inc., San Francisco, CA 94107; <sup>2</sup>Rady Children's Institute for Genomic Medicine, Rady Children's Hospital, 3020 Children's Way, San Diego, CA 92123

### Hands-on Time and Turn Around Time (TAT)

#### Miro Canvas:



#### Manual:



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Screening Program to Greece

## Rady Children's Institute for Genomic Medicine and PlumCare RWE Partner to Expand Newborn Screening Program to Greece

October 3, 2022

BeginNGS Greece to Be First International Site





# SINGULARITY UNIVERSITY

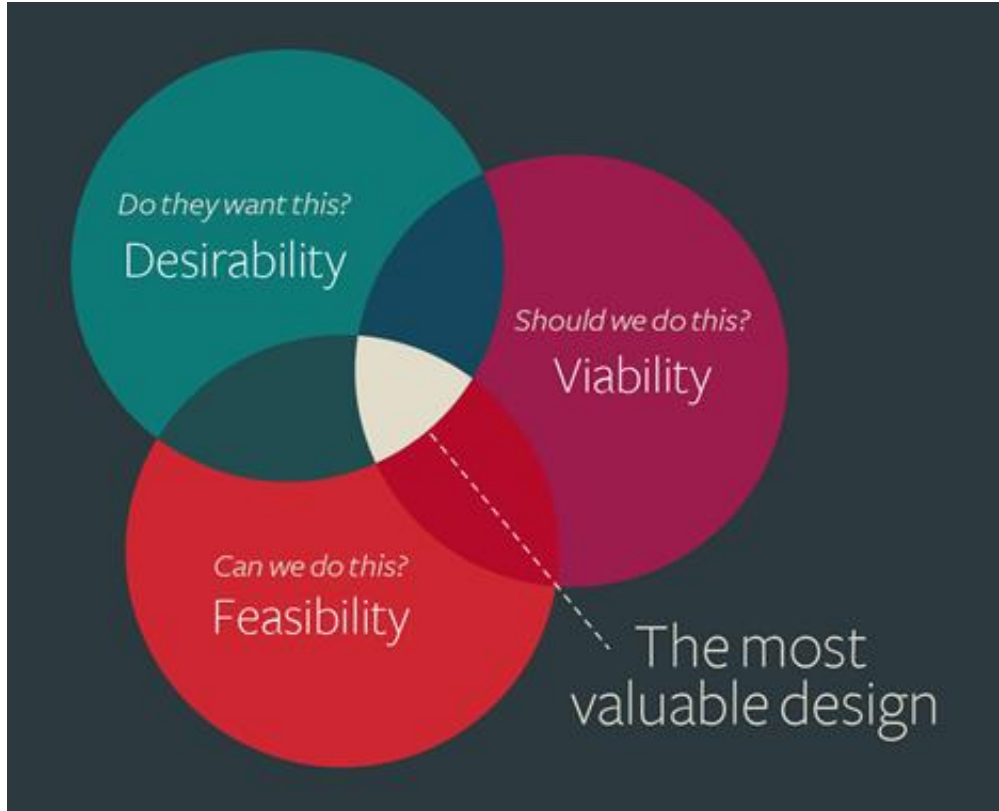
## Graduate Studies Program

Let's make the future exponentially better



Singularity University's Graduate Studies Program empowers participants with the tools, knowledge and skills for positively impacting billions of people.





Νοέμβριος 2013, Αθήνα, Santiago de Chile, Mexico city



ΣfEE  
Innovation  
Project

CDI  
La Ciudad de las Ideas  
PUEBLA 2013

Μάρτιος 2015, San Francisco



ΕΛΛΑΔΑ 08.11.2018

## Έλληνες φοιτητές κατέκτησαν χάλκινο μετάλλιο στον Παγκόσμιο Διαγωνισμό Συνθετικής Βιολογίας iGEM2018



Μια ομάδα εννέα Ελλήνων προπτυχιακών φοιτητών κατέκτησε χάλκινο μετάλλιο στον Παγκόσμιο Διαγωνισμό Συνθετικής Βιολογίας iGEM 2018, που πραγματοποιήθηκε στη Βοστώνη των ΗΠΑ, σχεδιάζοντας ένα διαγνωστικό τεστ για την ανίχνευση του ιού MERS-CoV.

ΕΚΤΥΠΩΣΗ

ΑΠΟΘΗΚΕΥΣΗ

COMMENTS

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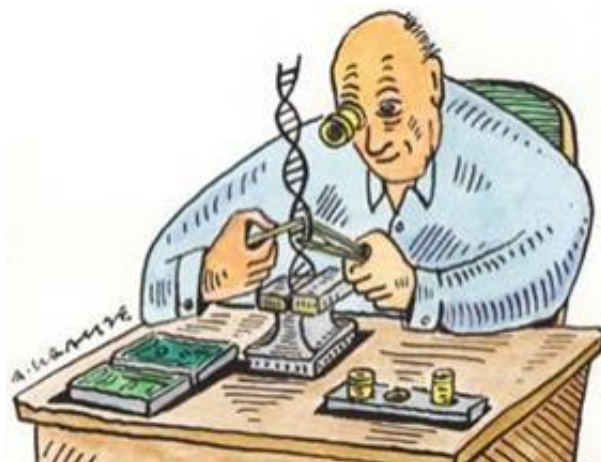
ΔΙΑΒΑΣΤΕ  
ΕΠΙΣΗΣ

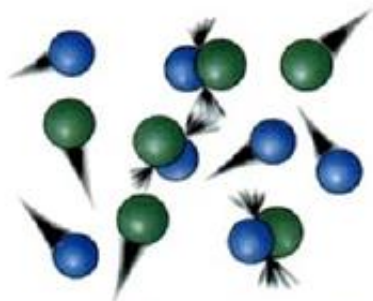
Εκτακτη κατάσταση για  
τρίτο χειμώνα στους  
καταυλισμούς

TANIA ΓΕΩΡΓΙΟΠΟΥΛΟΥ

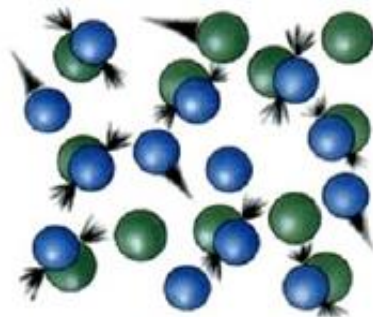
Το δωρεάν φαγητό ως  
κίνητρο σε πολλές  
επιχειρήσεις

PRIYA KRISHNA / THE NEW  
YORK TIMES





Low concentration = Few collisions



High concentration = More collisions

# The U.S. Bioeconomy: Charting a Course for a Resilient and Competitive Future

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## A Bioeconomy Strategy

APRIL 2022

A future global bioeconomy will be worth somewhere between \$4 trillion and \$30 trillion dollars. However, concerted action and a national strategy is imperative to ensure the U.S. does not miss out on this historic opportunity to expand the domestic bioeconomy

A well-developed bioeconomy will reduce the nation's dependence on fossil fuels, revitalize U.S. manufacturing and employment, create a more resilient supply chain, address concerns regarding national competitiveness and national security, improve the nation's health and the environment, and contribute significantly to the goal of creating a net-zero carbon economy.

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# Executive Order on Advancing Biotechnology and Biomanufacturing Innovation for a Sustainable, Safe, and Secure American Bioeconomy

SEPTEMBER 12, 2022 • PRESIDENTIAL ACTIONS

By the authority vested in me as President by the Constitution and the laws of the United States of America, it is hereby ordered as follows:

Section 1. Policy. It is the policy of my Administration to coordinate a

Σας ευχαριστώ



[fay@miroculus.com](mailto:fay@miroculus.com)