

CeCe  
Simulátor komunikace buněk v dynamickém prostředí

Jiří Fatka

Georgiev Lab  
Department of Cybernetics  
Faculty of Applied Sciences  
University of West Bohemia in Pilsen

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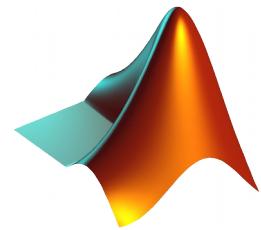


# Georgiev Lab

Used tools



RuleBender



Everything together?

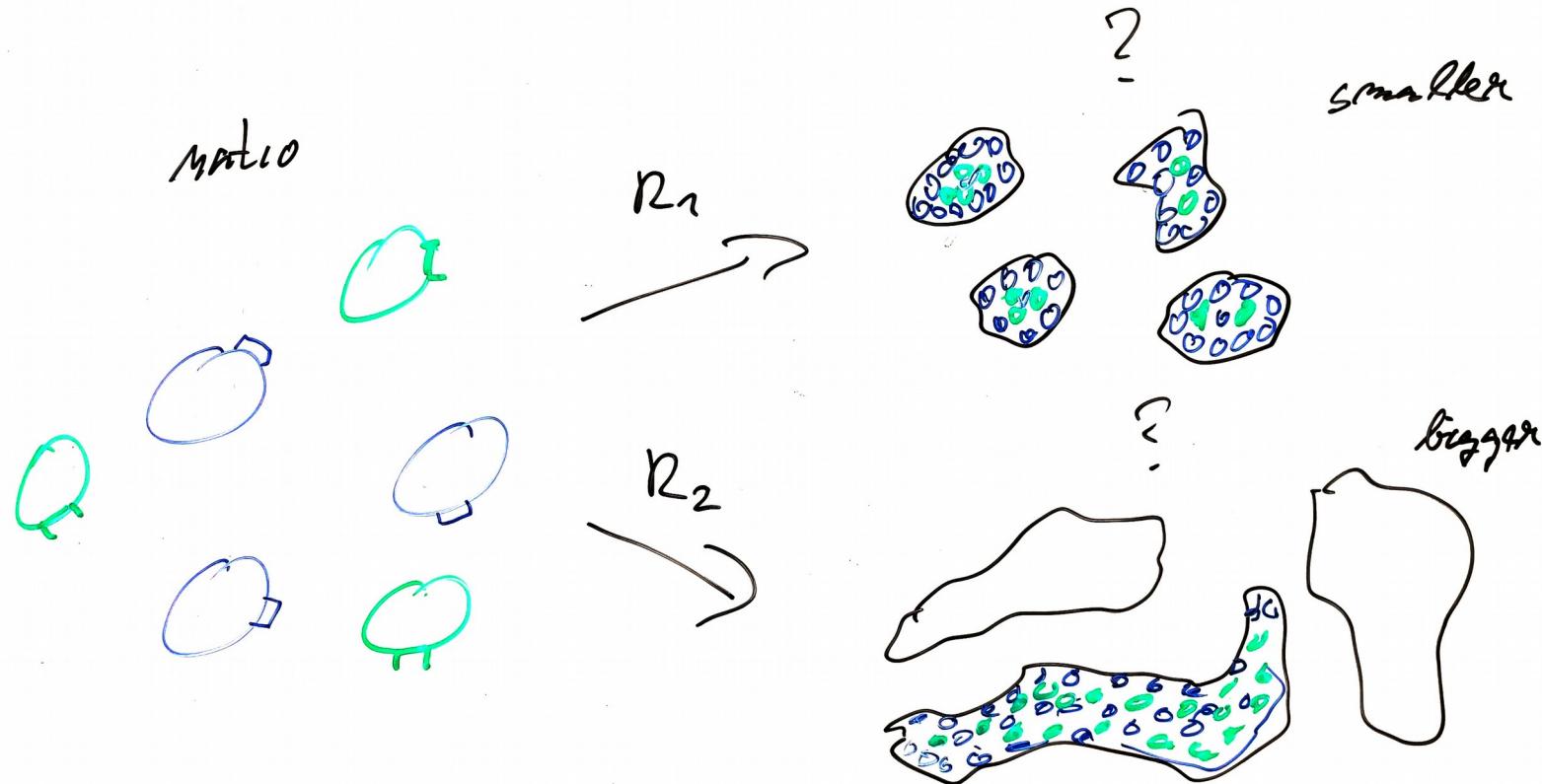
# CeCe

In-house simulation tool

- Stochastic intracellular & intercellular simulations
- Diffusion simulation
- Fluid simulation
- Cell agglutination

# Example 1

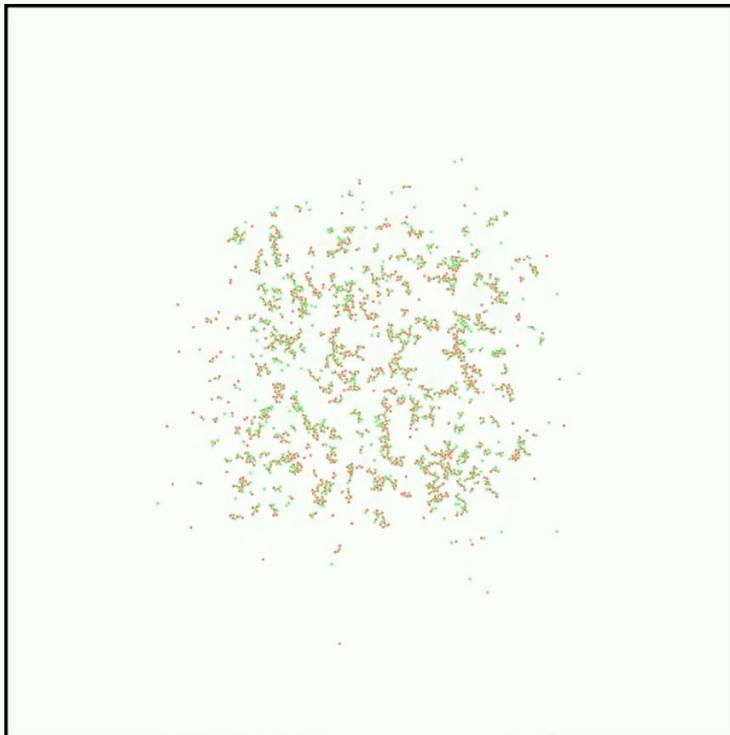
## Clumping



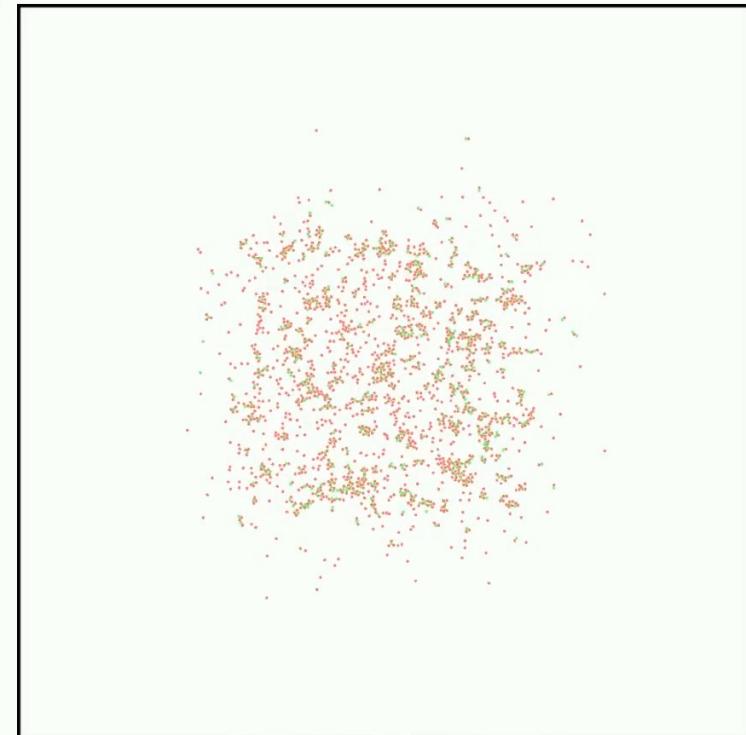
# Example 1

## Clumping

Ratio: 0.5

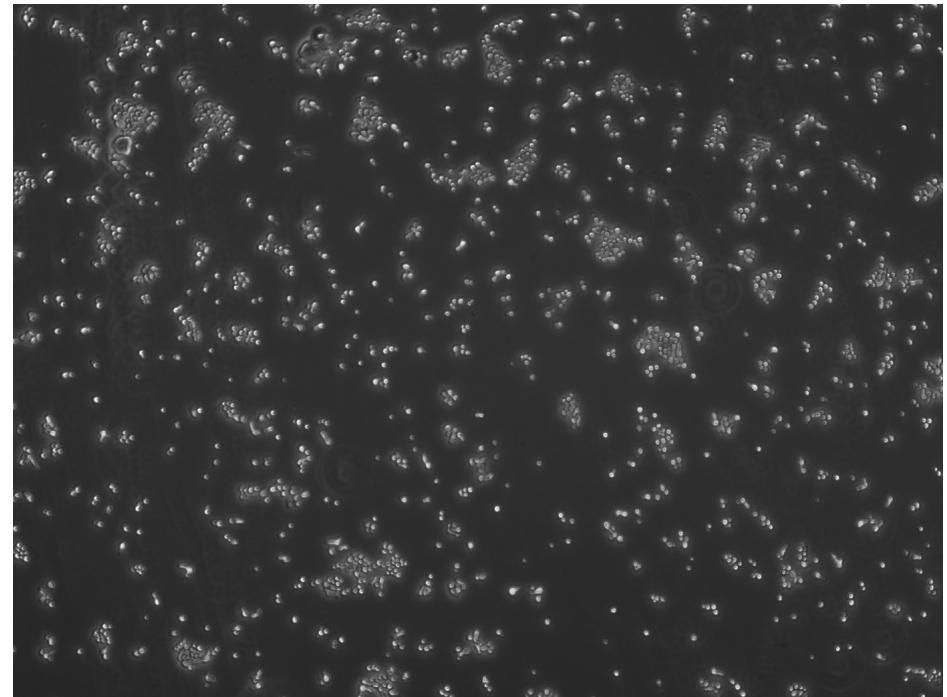
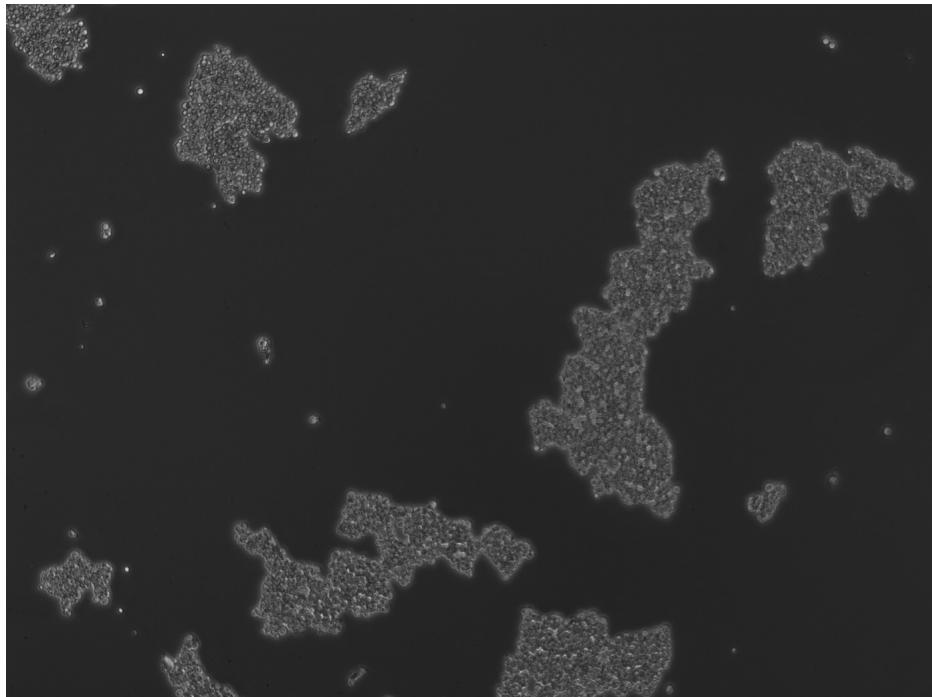


Ratio: 0.2



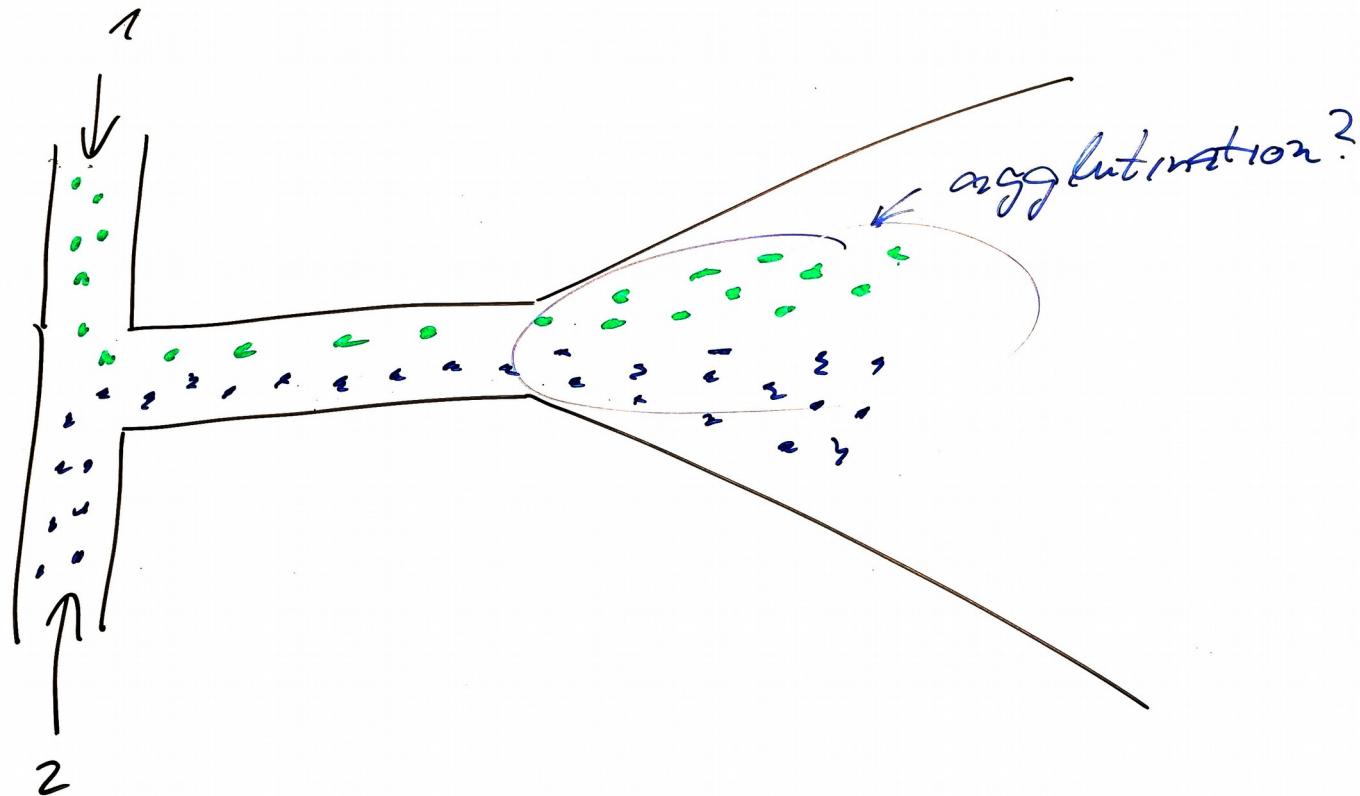
# Example 1

## Clumping



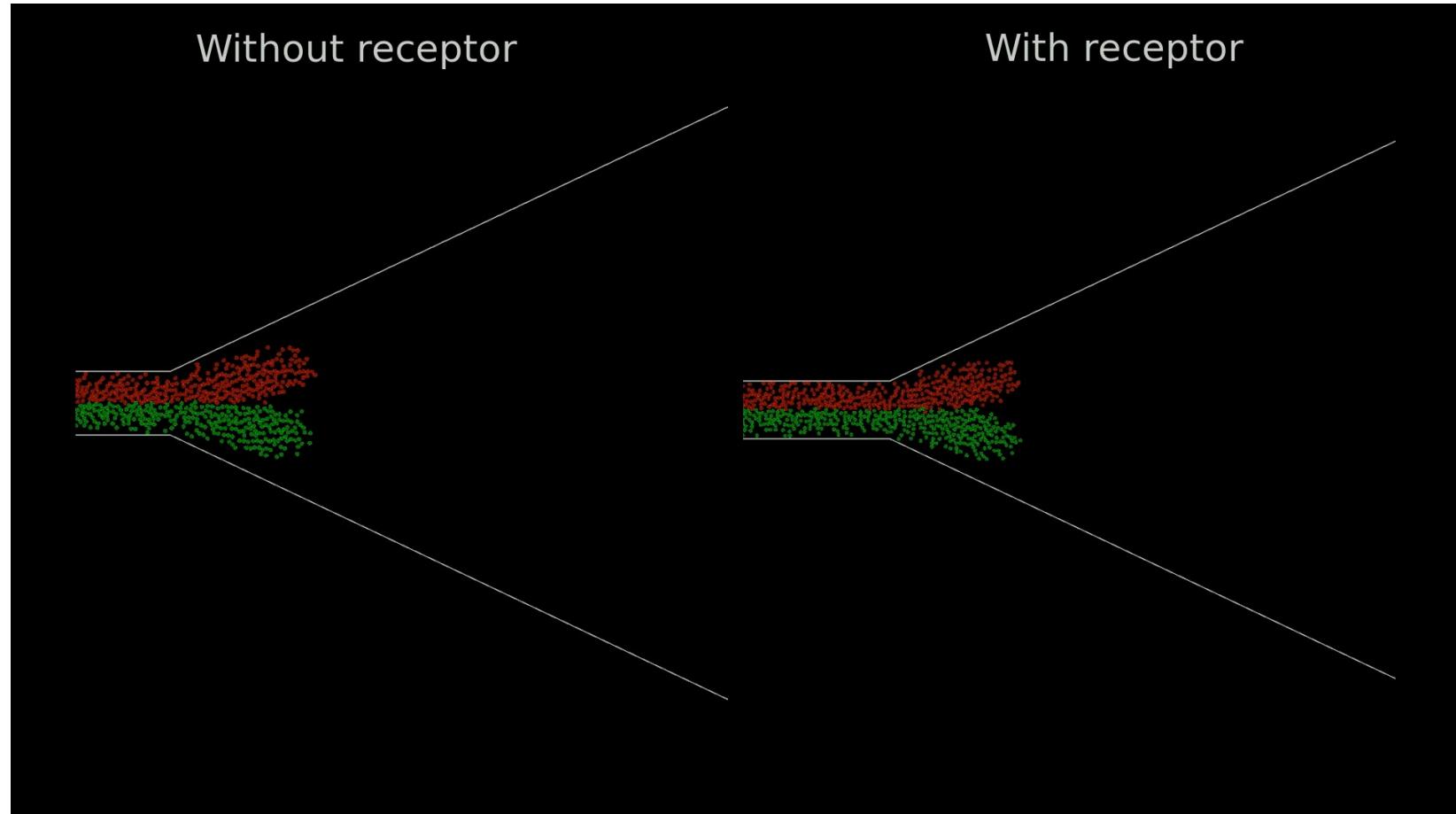
# Example 2

## Clumping - microfluidics



# Example 2

## Clumping – microfluidics



# Example 2

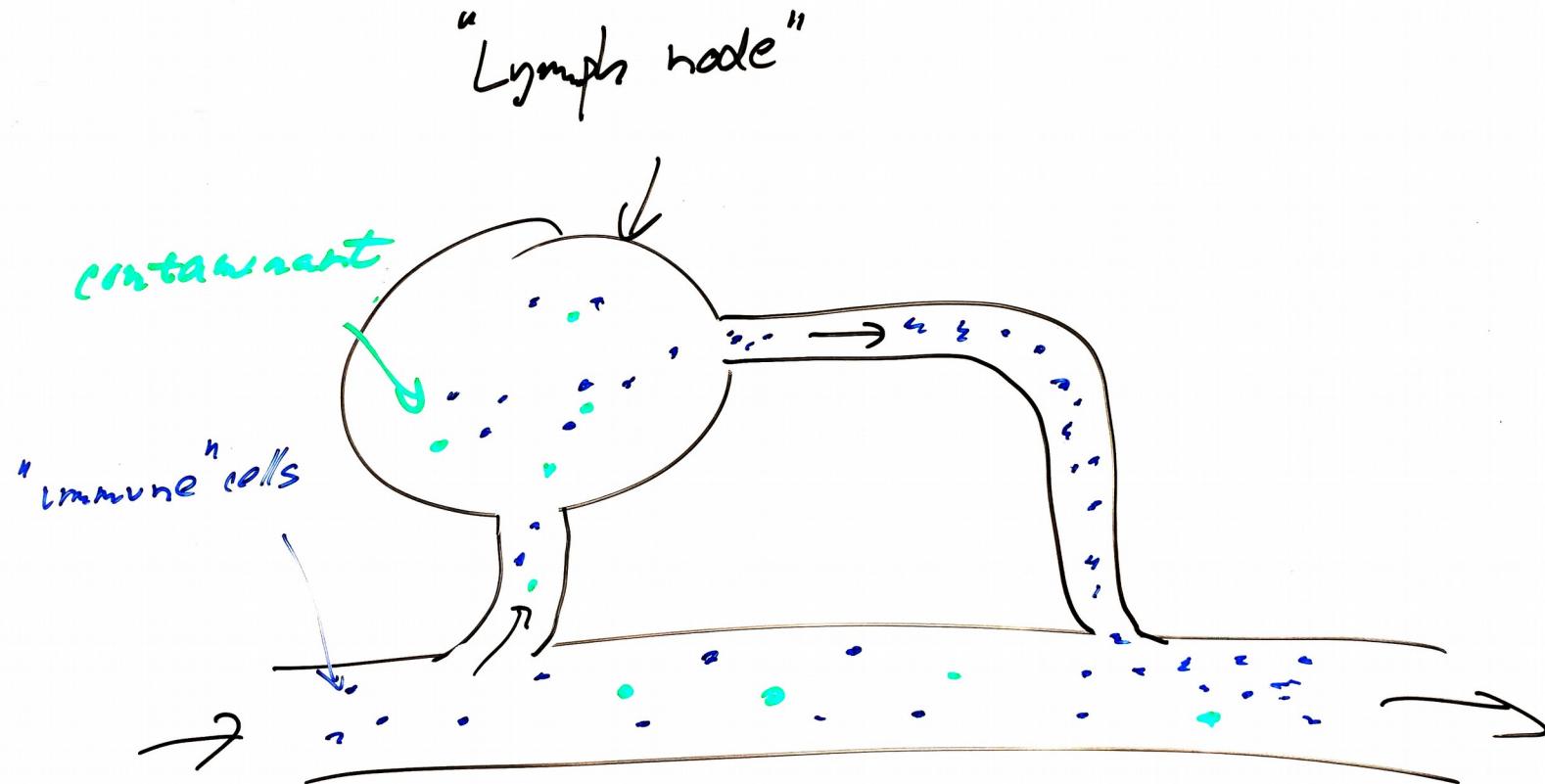
Clumping – microfluidics

YEAST INDUCED  
**BLOOD AGGLUTINATION ON-CHIP**  
FOR BETTER DIAGNOSTICS

BY TEAM CZECH REPUBLIC

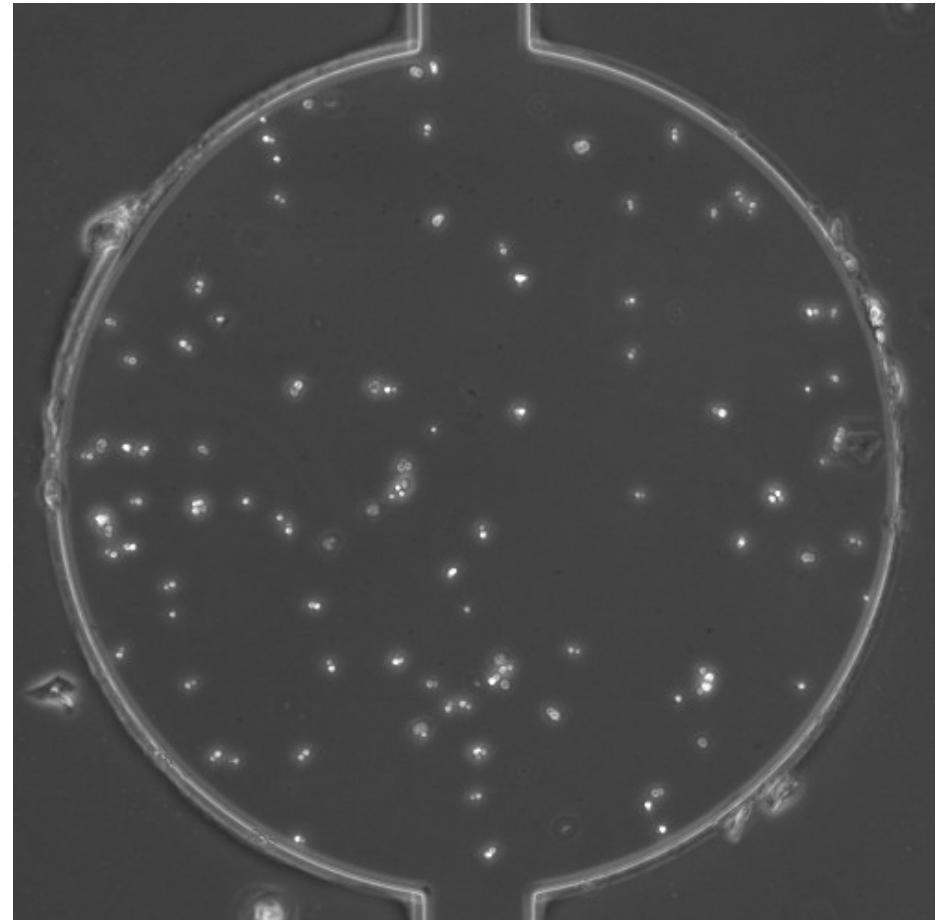
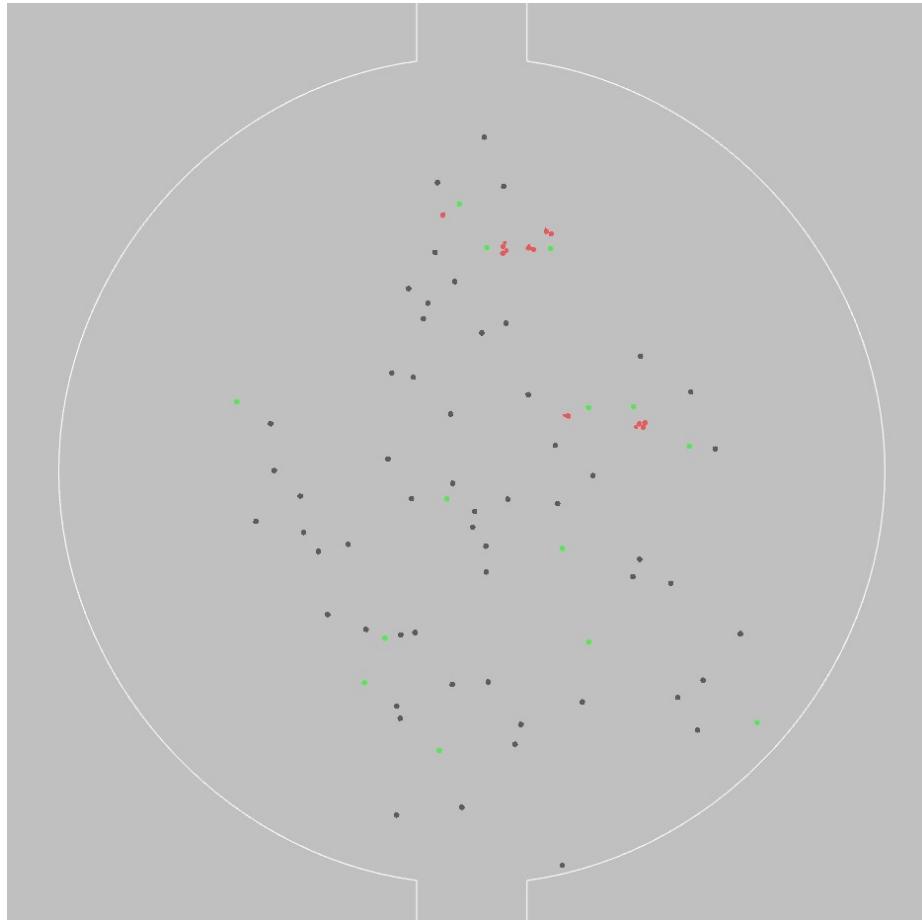
# Example 3

## Microfluidic chip immune system



# Example 3

## Microfluidic chip immune system



CeCe

Open-source

# GitHub

<https://github.com/GeorgievLab/CeCe>