https://github.com/physicell-training/02-How-to-nanoHUB

# Module 02: How to use a PhysiCell nanoHUB app

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last updated: November 13, 2019





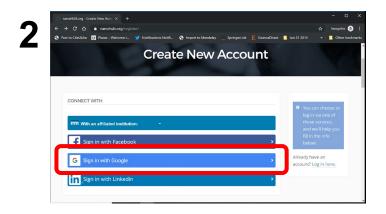


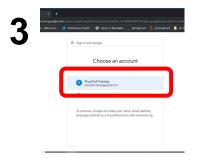
#### nanoHUB Account

- These tutorials use cloud-hosted PhysiCell models on nanoHUB.org.
- nanoHUB is free, but it requires a onetime registration.

#### • Steps:

- Visit <a href="https://nanohub.org/register">https://nanohub.org/register</a>
- Choose "Sign in with Google"
- 3. Choose a Google account
- 4. Click "No" (so it doesn't try to associate with some other nanoHIB account)
- 5. Finish filling in details, and you're done!
- Use your google account to sign in in the future.







# Sample nanoHUB app

- I suggest pcISA or pc4cancerbots
- Something fast but reasonably interesting.

# Splash screen and launching tool





### **About tab**



# **Config basics**





# **User parameters**





### **Out: Cell Plots**



#### **Out: Substrate Plots**



# **Downloading simulation plots**





## Live demo

# **Next steps**

Super fast: Please proceed to 04 (Introduction to PhysiCell)

link: <a href="https://github.com/physicell-training/04-PhysiCell-intro">https://github.com/physicell-training/04-PhysiCell-intro</a>

**Intermediate:** Please proceed to 04 (Introduction to PhysiCell)

link: <a href="https://github.com/physicell-training/04-PhysiCell-intro">https://github.com/physicell-training/04-PhysiCell-intro</a>

Full training: Please proceed to 03 (What is an agent-based model?)

link: https://github.com/physicell-training/03-What-is-ABM

More materials: <a href="https://github.com/physicell-training/master-list">https://github.com/physicell-training/master-list</a>

#### **Credits**

**Module Planning:** Paul Macklin, Drew Willis\*, Randy Heiland

Slides: Paul Macklin, Drew Willis, Randy Heiland

Recording: Paul Macklin, others?

Paul Macklin, Drew Willis\*, Kali Konstantinopoulos\* **Post-production:** 

Microapps: https://www.nanohub.org/tools/???

\* denotes undergraduate researcher

#### Funding:







#### **PhysiCell Development:**

- **Breast Cancer Research Foundation**
- Jayne Koskinas Ted Giovanis Foundation for Health and Policy
- National Cancer Institute (U01CA232137)
- National Science Foundation (1720625)

#### **Training materials:**

\* Administrative supplement to NCI U01CA232137 (Year 2)