



We will be starting soon



Docker for Public Health Bioinformatics

Week 00 - Training Kick-Off

PRESENTED BY:

Inês Mendes, PhD



Course Introduction

Meet the Team



Inês Mendes, PhD

Senior Bioinformatics Scientist with
Theiagen Genomics



Andrew Hale, BSc

Bioinformatics Developer with
Theiagen Genomics

Training Workshop Resources

Training Information, Communication, and Support

- **GitHub Repository** created to host training resources and information:
 - <https://github.com/theiagen/Mid-Atlantic-Docker4PH-2025>
- **Support contact:**
 - support@theiagen.com

Training Objectives

Docker for Public Health Bioinformatics

- Articulate the **utility of Docker and software containerization** and their applications in public health bioinformatics;
- Describe the **advantages and challenges of using containerized software** for interoperable and reproducible pathogen genomics;
- Gain experience with the **steps involved in developing and testing containerized software** for use in public health bioinformatics;
- Gain familiarity with **community-driven resources** for public health bioinformatics, such as StaPH-B's docker container repository.

Training Format

Virtual Training Workshop

All sessions hosted via Zoom. Below are key dates for this workshop (all in Eastern Time):

- **Tuesday (x4), April 01 - 22, 2025, 11:00 am**
 - Training Lectures & Exercises (90m)
- **Thursdays (x4), April 03 - 24, 2025, 11:00 am**
 - Training Office Hours (60m)

*All participants should have received a **Calendar invite** with Zoom call-in information*



Course Agenda

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Docker for Public Health Bioinformatics

Week 1 - April 01/03, 2025

- Introduction to the use of Docker and software containerization for public health bioinformatics
- Hands-on Exercise: Accessing the Course Repository, VS Code and Docker

Week 2 - April 08/10, 2025

- Container Repositories and Writing Dockerfiles
- Hands-on Exercise: Writing Dockerfiles to Build Docker Images

Course Agenda

Docker for Public Health Bioinformatics

Week 3 - April 15/17, 2025

- Developing Custom Docker Images
- Hands-on Exercise: Developing Custom Docker Images

Week 4 - April 22/24, 2025

- StaPH-B Docker-Builds Repository and Course Review
- Hands-on Exercise: Employing StaPH-B's Docker Images



GitPod Access for Hands-On Exercises

GitPod Access for Hands-On Exercises

Prerequisites for Hands-On Exercises

In addition to lectures, this course consists of several hands-on exercises to reinforce the coursework material. To participate in these exercises, trainees will need the following resources:

1. GitHub Account
2. GitPod Account
3. GitPod Configuration for Public Repositories
4. GitPod Workspace

Detailed instructions for setting these up are available in our course [GitHub repository](#)



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