de.KCD Summer School - Cloud Essentials for Medical Data

Report of Contributions

Contribution ID: **1** Type: **not specified**

Welcome and Introduction

Wednesday 2 July 2025 09:00 (30 minutes)

Contribution ID: **2** Type: **not specified**

Introduction to Virtual Machines and Basic Unix (with de.NBI SimpleVMs) | How to use a virtual machine - a secure, personal computer in the cloud - provided by the de.NBI cloud. Basics of the Unix system, which is a powerful and widely used environment in research and data handling.

Wednesday 2 July 2025 09:30 (1 hour)

Contribution ID: **3** Type: **not specified**

Simple VM II

Wednesday 2 July 2025 11:00 (1 hour)

Contribution ID: **4** Type: **not specified**

Exploring OpenStack: Your Cloud Control Panel | OpenStack is a tool that lets you manage your cloud resources - like storage and computing power - through a user-friendly web interface. In this session, you'll learn how to launch and control your own virtual machines.

Wednesday 2 July 2025 13:00 (2 hours)

OpenStack is a tool that lets you manage your cloud resources - like storage and computing power - through a user-friendly web interface. In this session, you'll learn how to launch and control your own virtual machines

Contribution ID: **5** Type: **not specified**

Using Large Language Models (LLMs) in Medicine | Introduces the concept of LLMs (like ChatGPT) and how they can be tailored to specific medical contexts to train and fine-tune an LLM for custom clinical terminology and privacy needs (including limitations).

Wednesday 2 July 2025 15:35 (1h 30m)

Contribution ID: **6** Type: **not specified**

Sensitive Data and Patient Privacy: What You Need to Know | Basics of data protection laws (like GDPR), secure data storage, and ethical use of medical information in the cloud.

Thursday 3 July 2025 09:00 (1h 30m)

Contribution ID: **7** Type: **not specified**

Sensitive Data II

Thursday 3 July 2025 11:00 (1 hour)

Contribution ID: **8** Type: **not specified**

Introduction to the Galaxy platform for reproducible and transparent data analysis, with a demonstration of how it is used to analyse proteomics data from the Freiburg Molecular Tumor Board.

Thursday 3 July 2025 13:00 (2 hours)

This session introduces the Galaxy platform as a user-friendly solution for data storage, analysis, sharing, and workflow management, enabling reproducible and transparent biomedical data analyses. A hands-on component will provide participants with practical experience using Galaxy on a simple dataset. An exemplary clinical use case will demonstrate how proteomics data from molecular tumor board patients can be analyzed within Galaxy, with the resulting reports included as part of the information used in molecular tumor board decision-making.

Contribution ID: **9** Type: **not specified**

Local Initiatives: Connecting Medical Data in the Region | Overview of regional efforts to improve medical data sharing across institutions.

Thursday 3 July 2025 15:30 (30 minutes)

Contribution ID: **10** Type: **not specified**

Conclusions / Closing

Thursday 3 July 2025 16:00 (30 minutes)