# OSCARS

**Open Science Clusters' Action for Research & Society**

# Funded Project

## PRIVAGAMS - Services for Privacy Advancement through Generative AI and Model Sanitization

Presenter: Robert Harb, Medical University of Graz, ORCID: 0009-0001-3427-7054

Implemented by

Med Uni Graz

TU WIEN

MASARYK UNIVERSITY

MO/U Masaryk Memorial Cancer Institute

# What problem(s) did you plan to solve?

- Digitization allows large-scale scanning of tissue samples in **Pathology**
- The Biobank in Graz alone holds **over 20 million** glass slides
- These images are an **invaluable resource** for advancements in medicine and AI
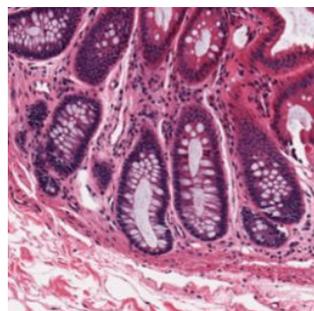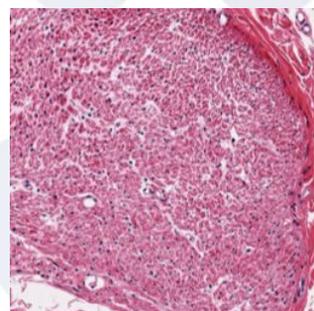- Strict legal frameworks **limit data sharing**, to protect patient privacy
- To foster **Open Science**, we need methods to make data publicly available
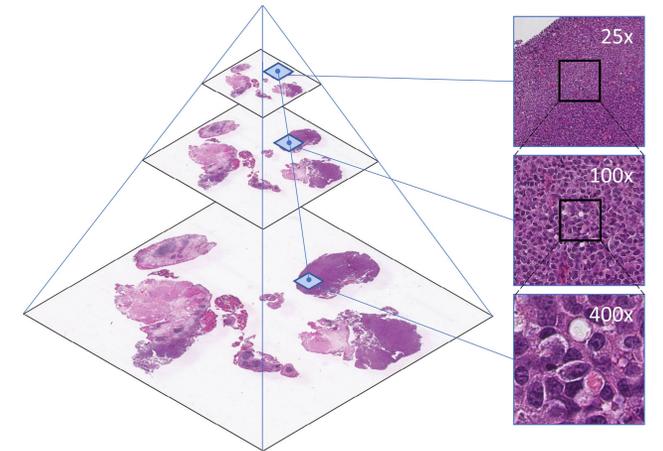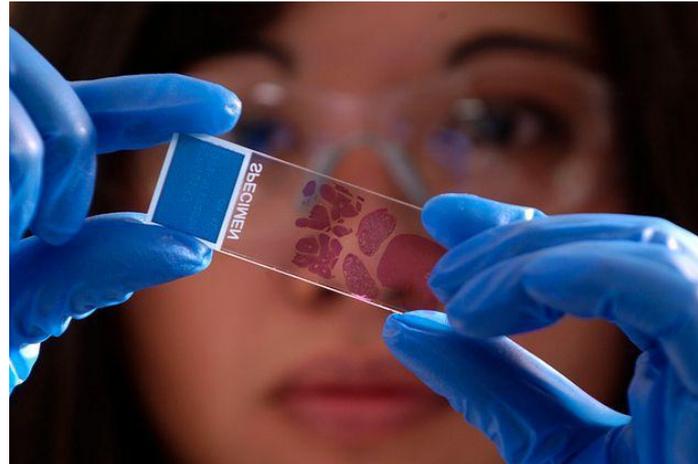
# What have you done to solve the problem?

## Diffusion-based synthetic image generation for histopathological images
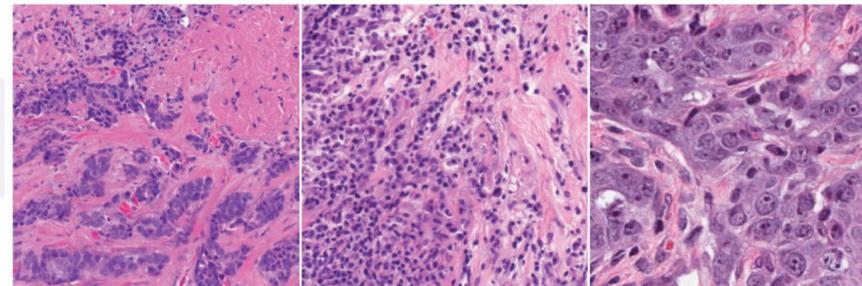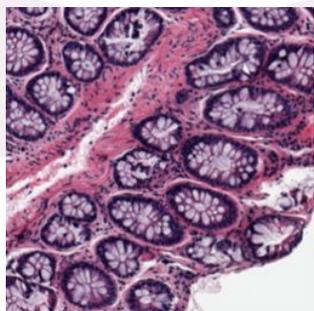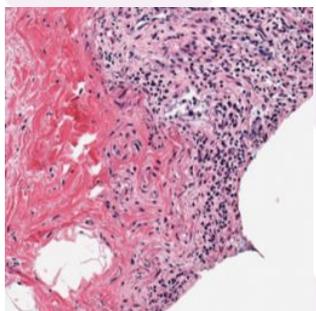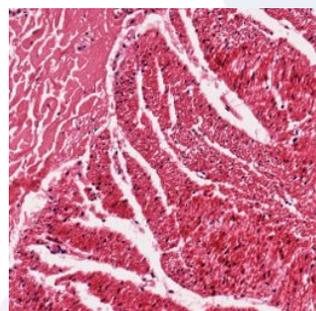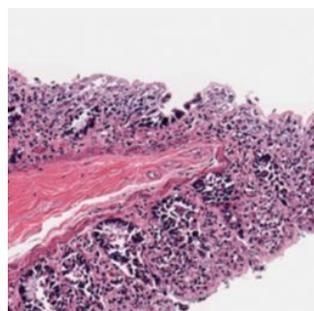
**What are the key results achieved to date and how have you made them available to the broader community?**

- **Privacy Preserving Generative AI and Model Sanitization** submitted to **ASHPC 2026**

- **Benchmarking WSI Privacy: A Challenge on Linkage Attacks and Synthetic Data Anonymization** submitted to **ECDP 2026**

- **Kaggle competition on linkage attacks in Whole Slide Image sharing** (will start soon)

- **Dataset of synthetic histopathology images** (release through BBMRI)

**How will make your results sustainable over time - How will the scientific community/-ies further exploit them?**

- **Scientific publications provide methodological frameworks that guide researchers in advancing synthetic data generation for histopathology**

- **Kaggle competition** will provide a baseline on the risks of synthetic WSI sharing

- **Dataset of synthetic histopathology images** will give researches open access to data that's otherwise closed, restricted, or inaccessible due to privacy, ethical, or legal constraints

OSCARS

# Who is doing it?

**Medical University Graz**

Robert Harb

Heimo Müller

**Technical University Vienna**

Bernd Saurugger

Andreas Rauber

**Masaryk University Brno**

Jakub Pekar

Petr Holub

Vit Musil

**Masaryk Memorial Cancer Institute**

Rudolf Nenutil