



Ivan Franko
National
University of Lviv



UNIVERSITÄT
DES
SAARLANDES

HIPS

2nd SUMMER SCHOOL IN NATURAL PRODUCTS RESEARCH

09-16 AUGUST 2026

Participants Selection

in Numbers



112

Applications from all
over Ukraine

38

Different universities
and institutes

50

Applicants selected
for the interview

8

Onsite lecturers
(2 foreign, from Poland
& the Netherlands)



Participants in Numbers



We have selected:

19

to take part in both
practical & theoretical
courses

38

to take part in theoretical
course with LS-MS data
annotation workshop.

Additionally,

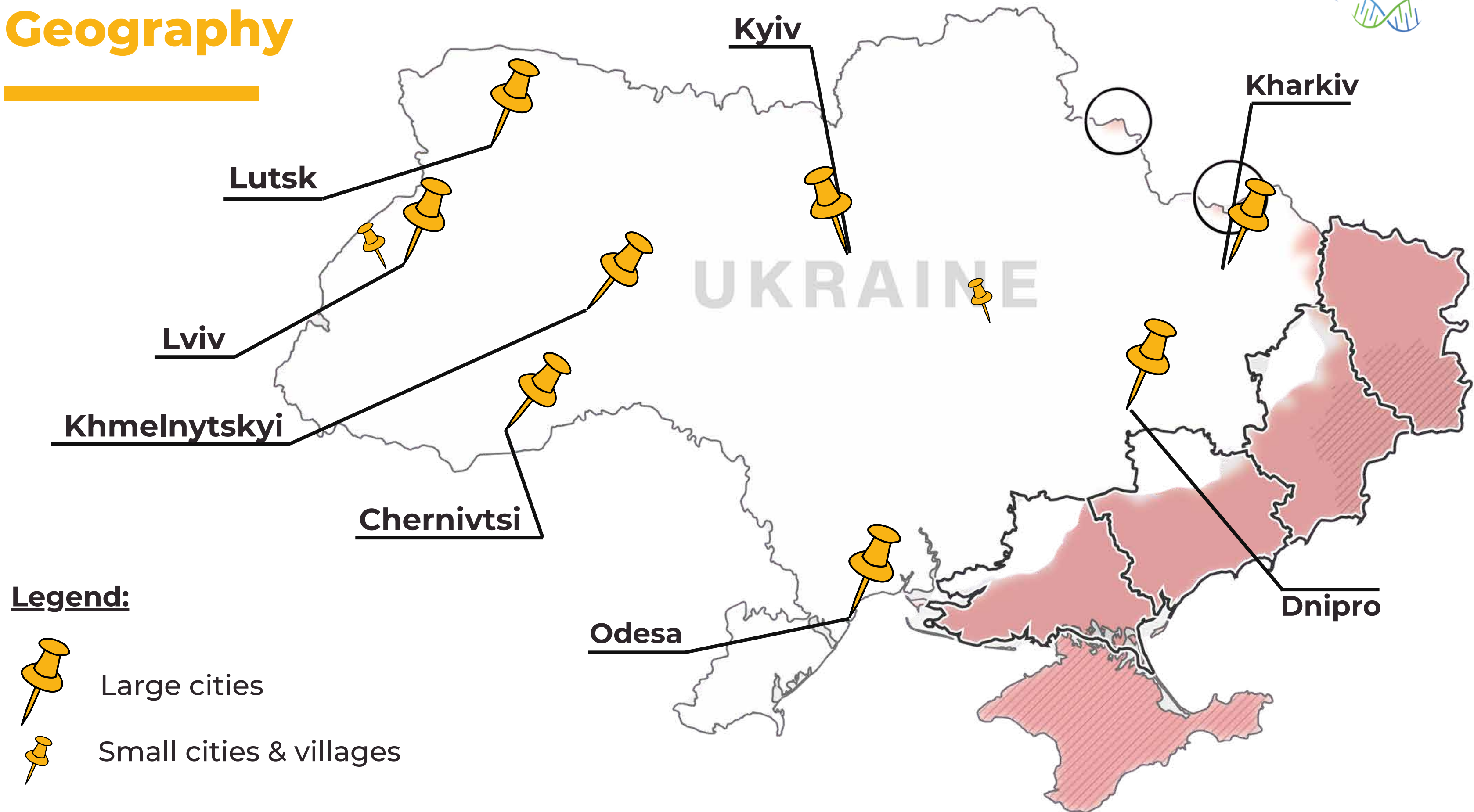
25+

applicants have joined
lectures online via Zoom



Participants

Geography



Summer School

Locations



Lviv, Explogen laboratory



Carpathians, Shepilska hotel



Lectures

Day 1



10:00 AM - 11:00 AM

Dr. Nataliia Machushynets
(Leiden University, The Netherlands)

A journey through the world of natural products from chemical diversity to biosynthesis



11:00 AM - 12:00 PM

Dr. Kai Blin
(Novo Nordisk Foundation Center for Biosustainability, Technical University of Denmark, Denmark)

Introduction to the antiSMASH Ecosystem



12:00 PM - 01:00 PM

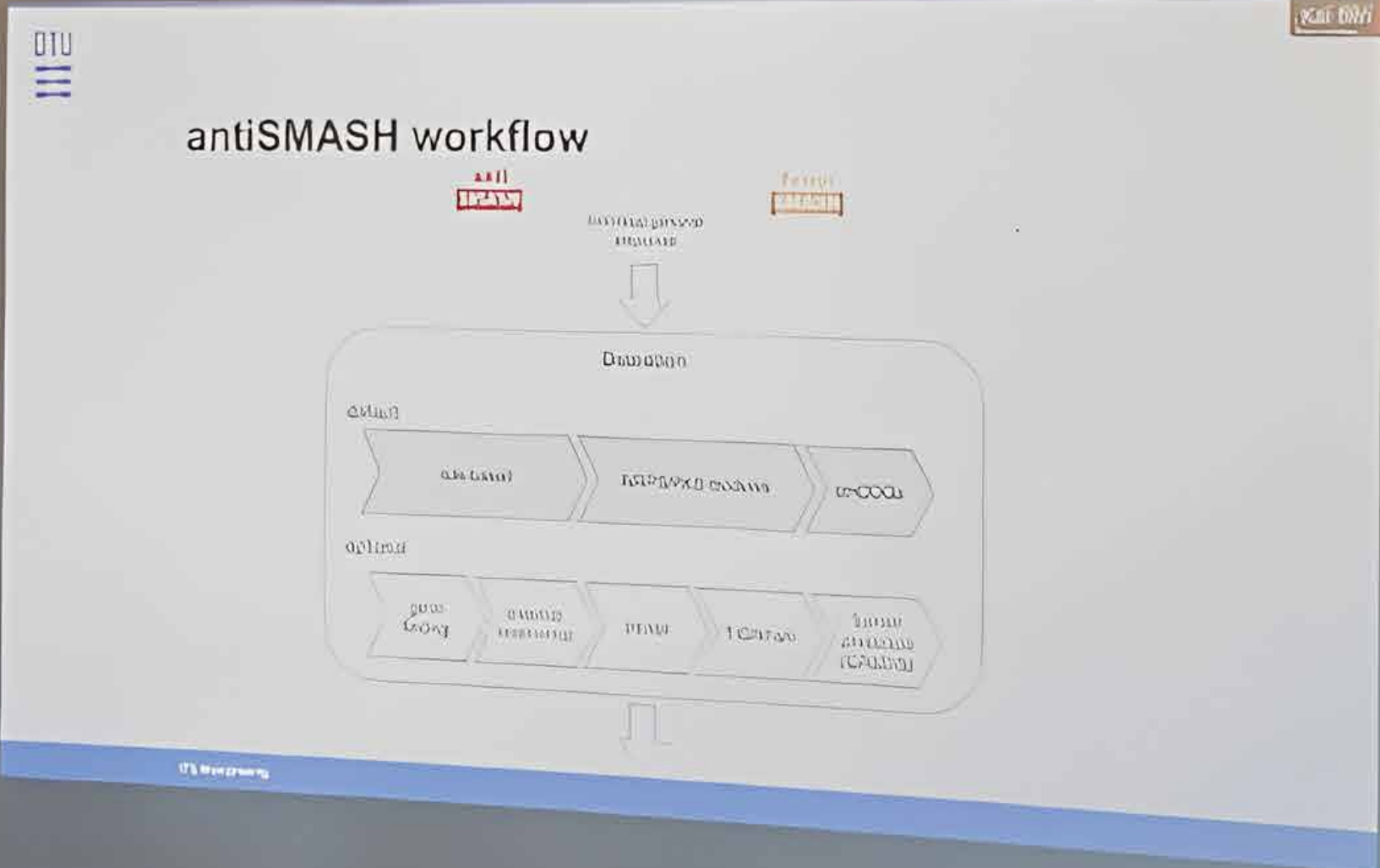
Dr. Stefan Böttcher
(Saarland University, Germany)

Structure Elucidation of Natural Compounds by the Use of Modern Spectroscopical Methods



Dr. Nataliia Machushynets

DTU logo and navigation icons at the top of the presentation slide.



Navigation and control icons at the bottom of the presentation slide, including icons for back, forward, search, and other presentation controls.

Dr. Kai Blin



Workshops

Day 1



Dr. Stepan Tistechok

CENtR

**Tutorial: How to work
with LC-MS data**



Prof. Dr. Bohdan Ostash

CENtR

**Tutorial: How to work
with antiSMASH data**

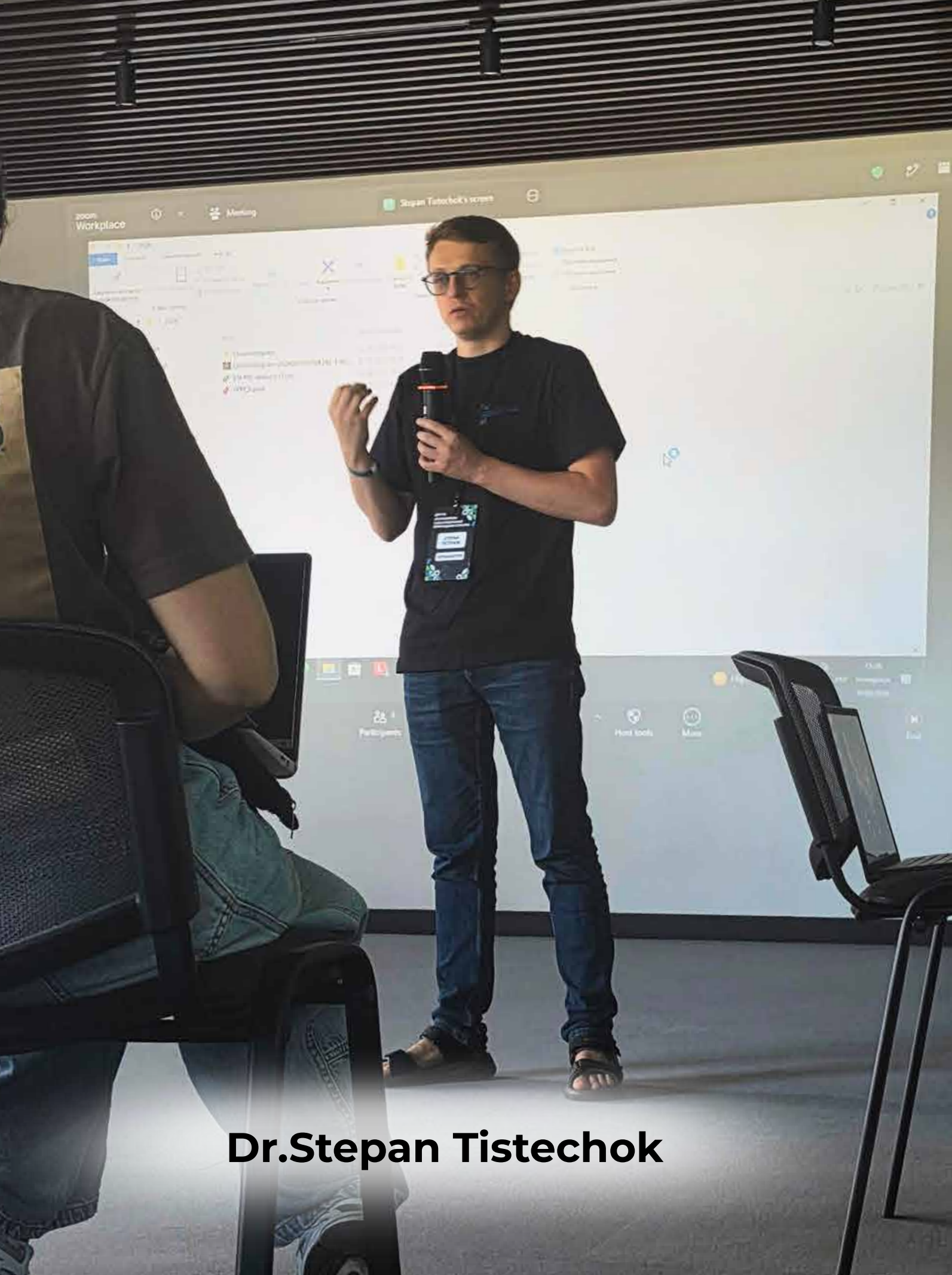
German-Ukrainian Core of Excellence in Natural Products Research

Ivan Franko National University of Lviv

with antiSMASH Data

Bohdan Ostash
Scientific Director, CENIR
Principal Investigator, IFNUL
bohdan.ostash@lnu.edu.ua

Prof. Dr. Bohdan Ostash



Dr. Stepan Tistechok



LC-MS Workshop

Lectures

Day 2



10:00 AM - 11:00 AM

Prof. Dr. Andriy Luzhetskyy
(Saarland University,
Germany)

Natural products - Quo vadis



11:00 AM - 12:00 PM

Prof. Dr. Justyna Ruchała
(University of Rzeszow, Poland)

**Hidden Yeasts in Extreme
Environments: How to
Discover New Cell Factories**



12:00 PM - 12:45 PM

**Dr. Anna Kachor &
Andriy Zatushevskyy**
(CENTR, Ukraine)

**Actinobacteria: from
biology to case studies**



12:45 PM - 01:15 PM

Yana Nohach
(CENTR, Ukraine)

**Vector system for
*Saccharopolyspora erythraea***



02:15 PM - 03:00 PM

Prof. Dr. Peter Leadlay
(University of Cambridge,
United Kingdom)

**A journey through the world of
natural products from chemical
diversity to biosynthesis**



03:00 PM - 04:00 PM

Dr. Taras Peretyatko
(Ivan Franko Lviv National
University; National Antarctic
Scientific Center, Ukraine)

**Antarctic microorganisms and
their biotechnological potential,
field and laboratory research**



04:00 PM - 05:00 PM

Dr. Rebecca Casson
(John Innes Centre,
United Kingdom)

**Nature's Chemists:
The Plant Medicine Toolbox**

zoom
Workplace



Meeting

Andriy's screen



Andriy

Natural Products – Quo vadis

Andriy Luzhetskyy

Saarland University

Helmholtz Institute for Pharmaceutical Research Saarland

CENTR

Audio

Video

10
Participants

Chat

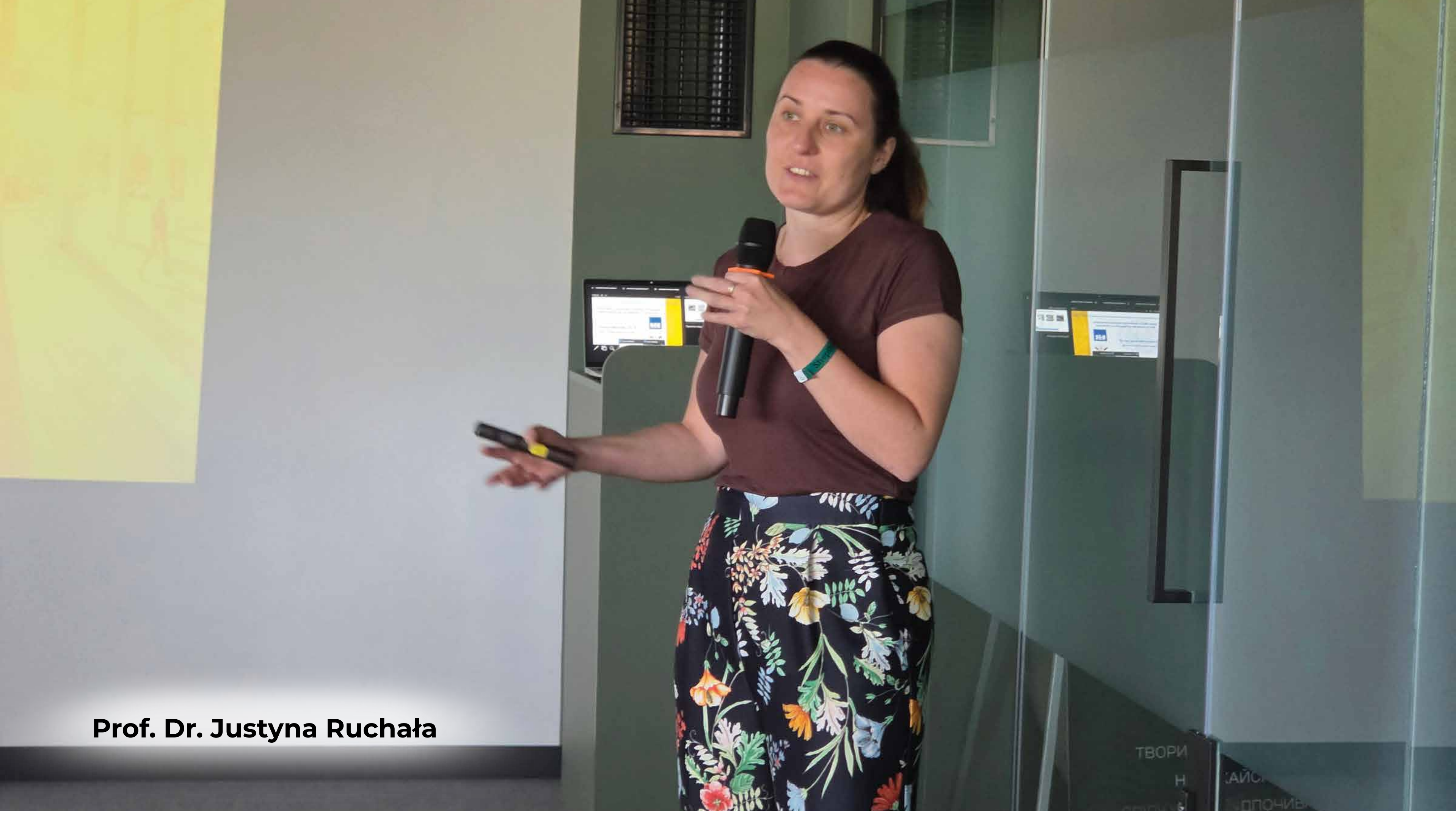
React

Share

Host tools

More

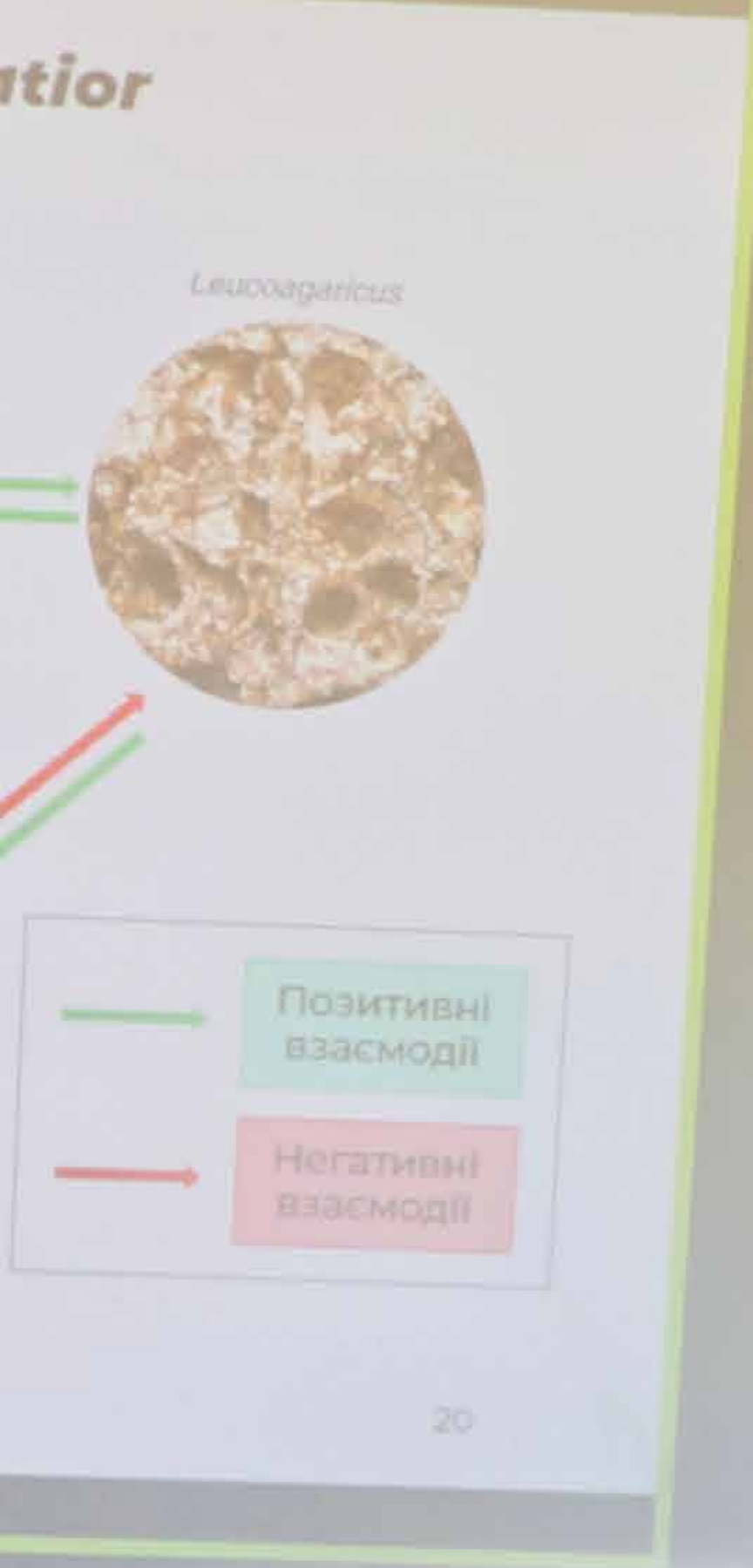
Prof. Dr. Andriy Luzhetskyy



Prof. Dr. Justyna Ruchała

Dr. Anna Kachor





Andriy Zatushevskyy

TV



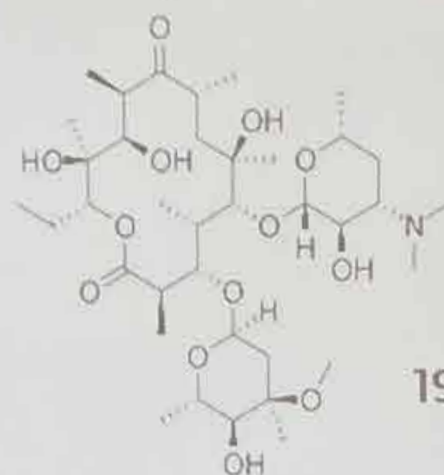
52 рік

Lilly
A MEDICINE COMPANY

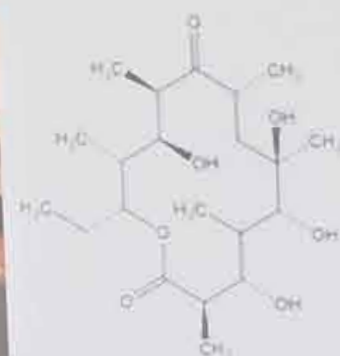
1952 рік



еритроміцину А

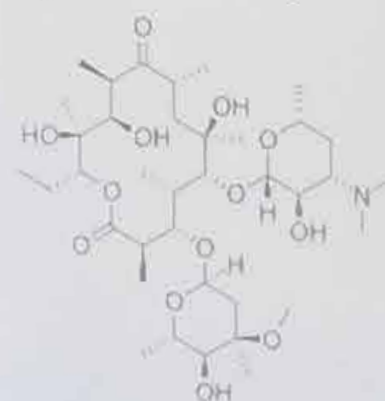


1957 рік

A color portrait photograph of Dr. Robert A. M. Jones. He is an older man with white hair, wearing glasses, a white shirt, a dark tie, and a dark suit jacket. He is smiling and standing in front of a bookshelf filled with books.

1978 рік

Група Роберта Бернса Вудворда
Повний синтез еритроміцину А



1981 рік

doi: 10.1038/ja.2017.62



Yana Nohach

Genome Sequencing of Actinomycetes in Cambridge

2005-2007 Erythromycin producer
Saccharopolyspora erythraea



Markiyan Samborskyy

2015-2018 >100 *Streptomyces*,
Micromonospora and *Saccharopolyspora* spp.

These are finished (complete) genome sequences,
not "drafts". Bio-informatic analysis suggests a
total of >2000 biosynthetic gene clusters



Peter Leadlay

→  → 

Детальний багатoproфiльний аналіз зразків проводиться в лабораторіях України із застосуванням сучасних методів (мікробіологічних, молекулярно-генетичних, біогеохімічних, екологічних тощо).

Отримані результати інтегруються, інтерпретуються та використовуються для оцінки стану екосистем Антарктики, підготовки наукових публікацій, доповідей і рекомендацій для природоохоронної діяльності.

ці
іджень

ерів
сліджень в Антарктиді

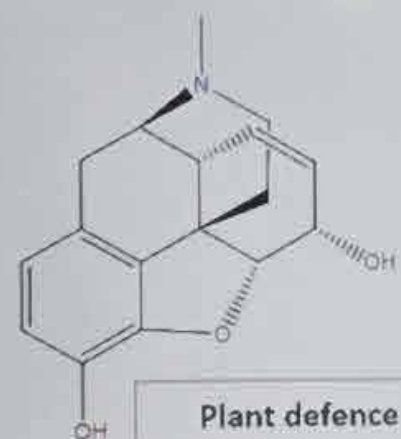




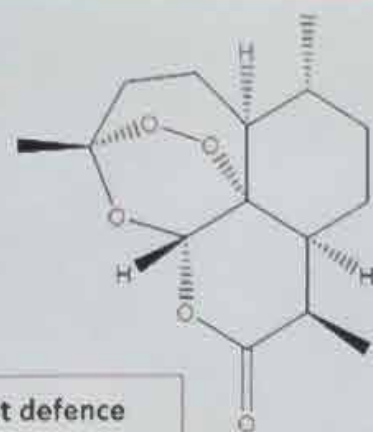
Dr. Taras Peretyatko



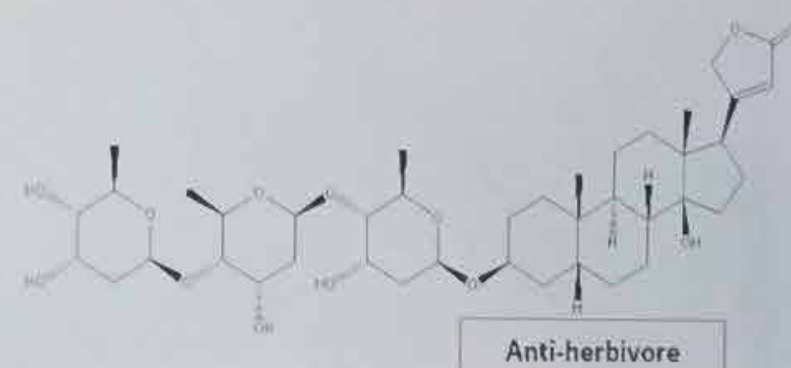
Plants Make a Variety of Natural Products...



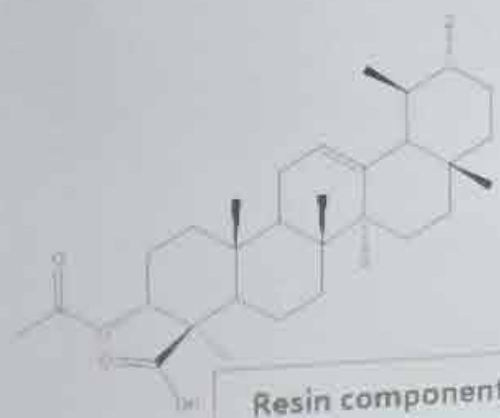
Morphine
From opium poppy
(*Papaver somniferum*)



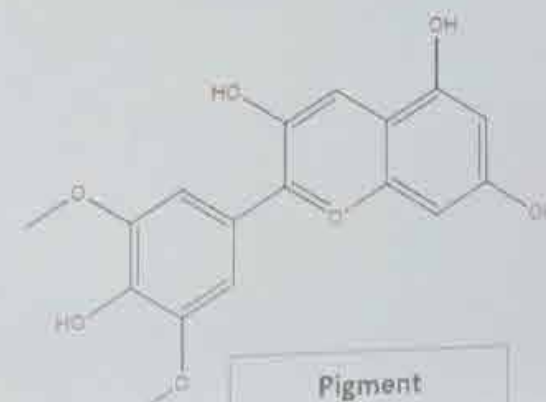
Artemisinin
From sweet wormwood
(*Artemisia annua*)



Digitoxin
From common foxglove
(*Digitalis purpurea*)



3-O-Acetyl- β -boswellic acid
From frankincense tree
(*Boswellia sacra*)



Malvidin
From common grape
(*Vitis vinifera*)

Lectures

Day 3



10:00 AM - 11:00 AM

Prof. Dr. Hajo Kries
(University of Stuttgart, Germany)

**Biosynthetic Engineering of
Nonribosomal Peptides**



11:00 AM - 12:00 PM

Dr. Jennifer Herrmann
(HIPS, Germany)

**Antibiotic Development: from
Compound to Pre-Clinical Studies**



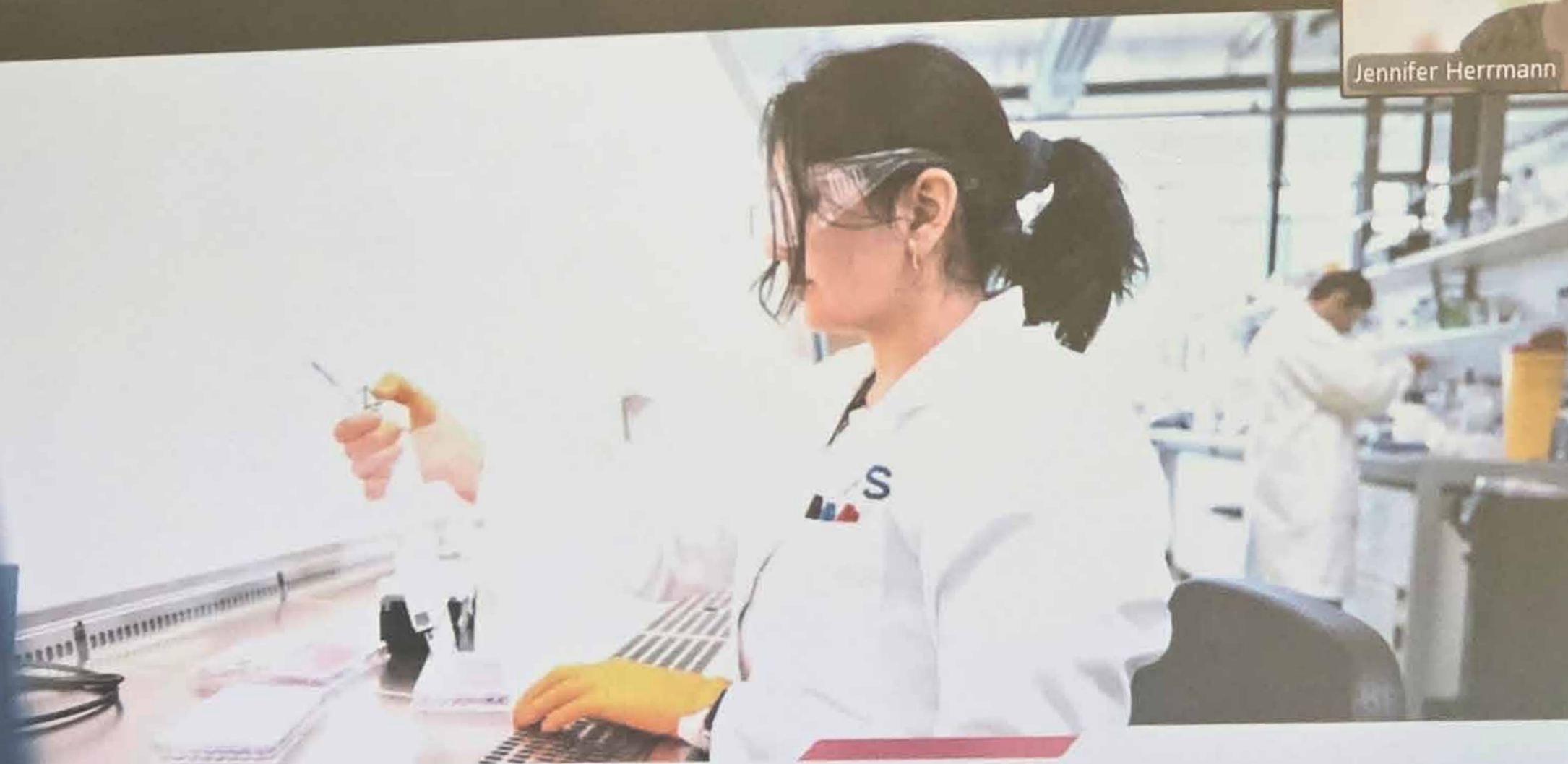
12:00 PM - 12:45 PM

Dr. Bohdan Tokovenko
(BASF, Germany)

The Academic and Industrial Science



Jennifer Herrmann



Antibiotic Development: From Compound to Pre-Clinical Studies

Dr. Jennifer Herrmann

2nd Summer School in Natural Products
Research August 2026

HIPS

HELMHOLTZ

Institute for Pharmaceutical Research Saarland



Am I qualified to talk about the topic? (2/4)

- Actively applied for scientific summer schools, courses, conferences, as well as for student travel grants: Greece, Sweden, UK, Austria, ...



Panel Discussion

Day 3

12:45 PM - 01:30 PM

Panel Discussion: From Academia to Industry



Prof. Dr. Bohdan Ostash
(CENTR,
Ukraine)



Dr. Oksana Bilyk
(Recircle,
United Kingdom)



Dr. Bohdan Tokovenko
(BASF,
Germany)



Viktoriia Vonsovych
(University of Bonn,
Germany)

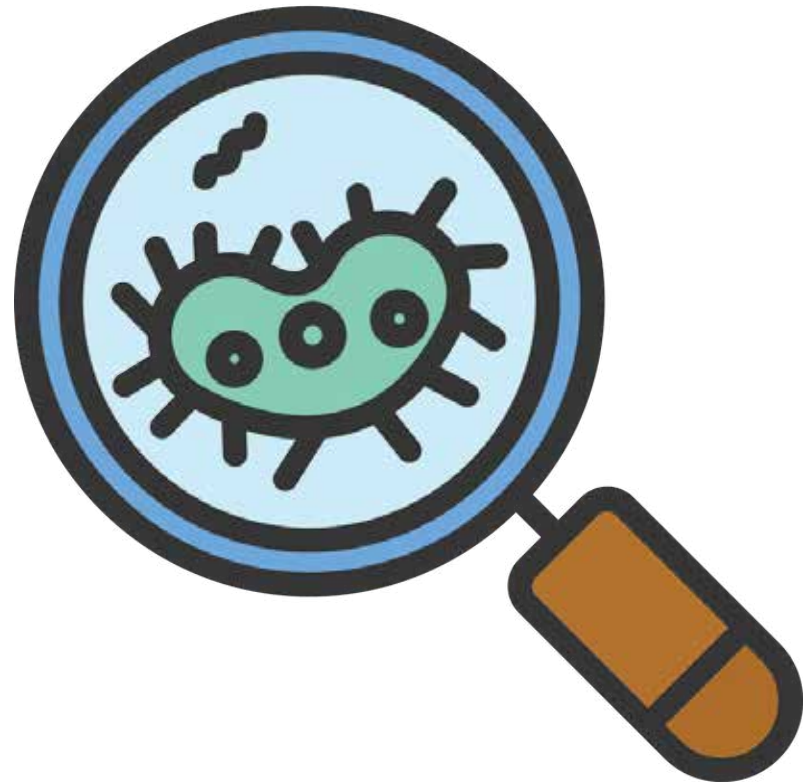


Moderator:
Nadiia Lekhniuk
(CENTR, Ukraine)



Panel Discussion

Practical Course



**Strain
characterization**

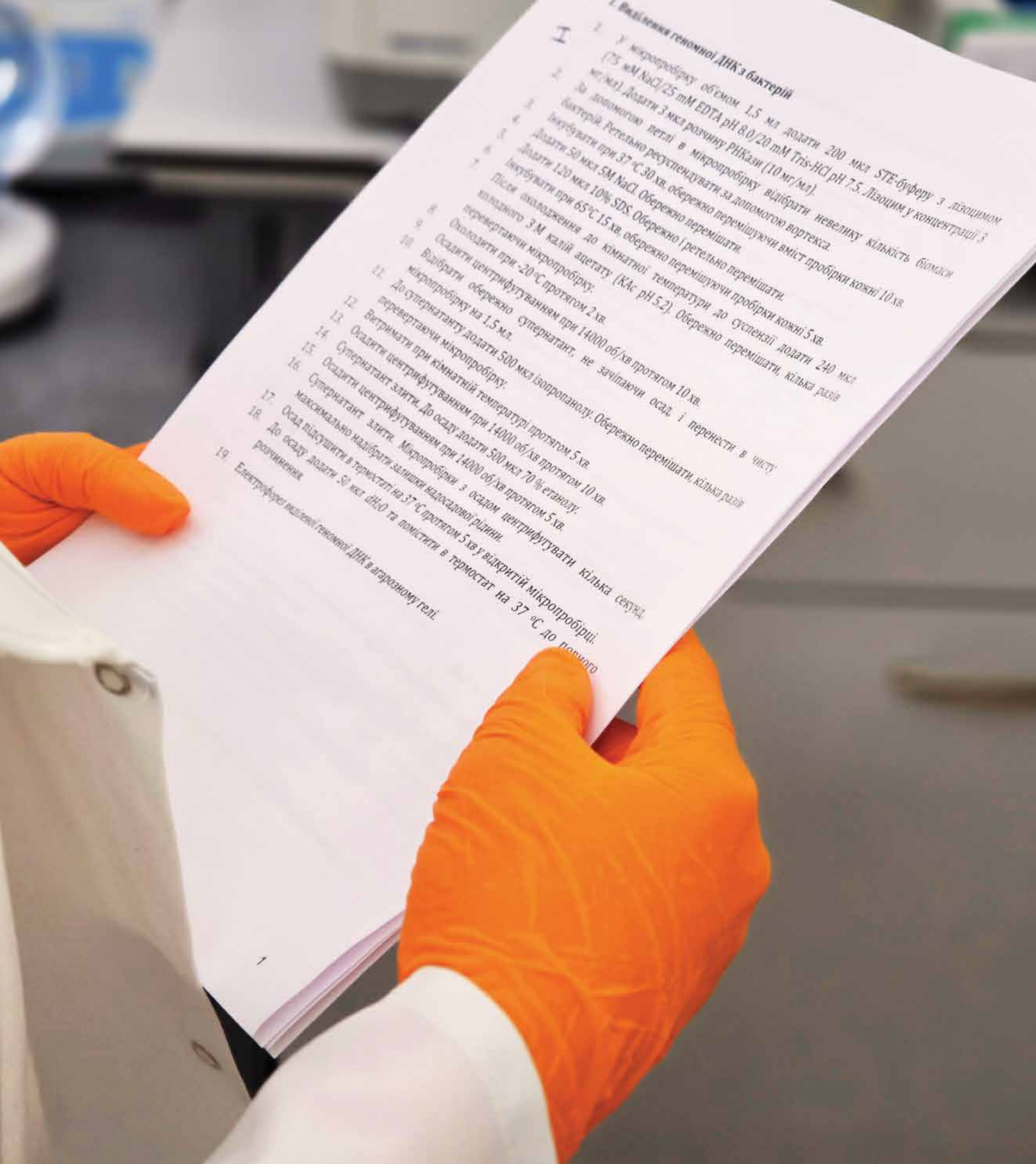


**Gene
cloning**

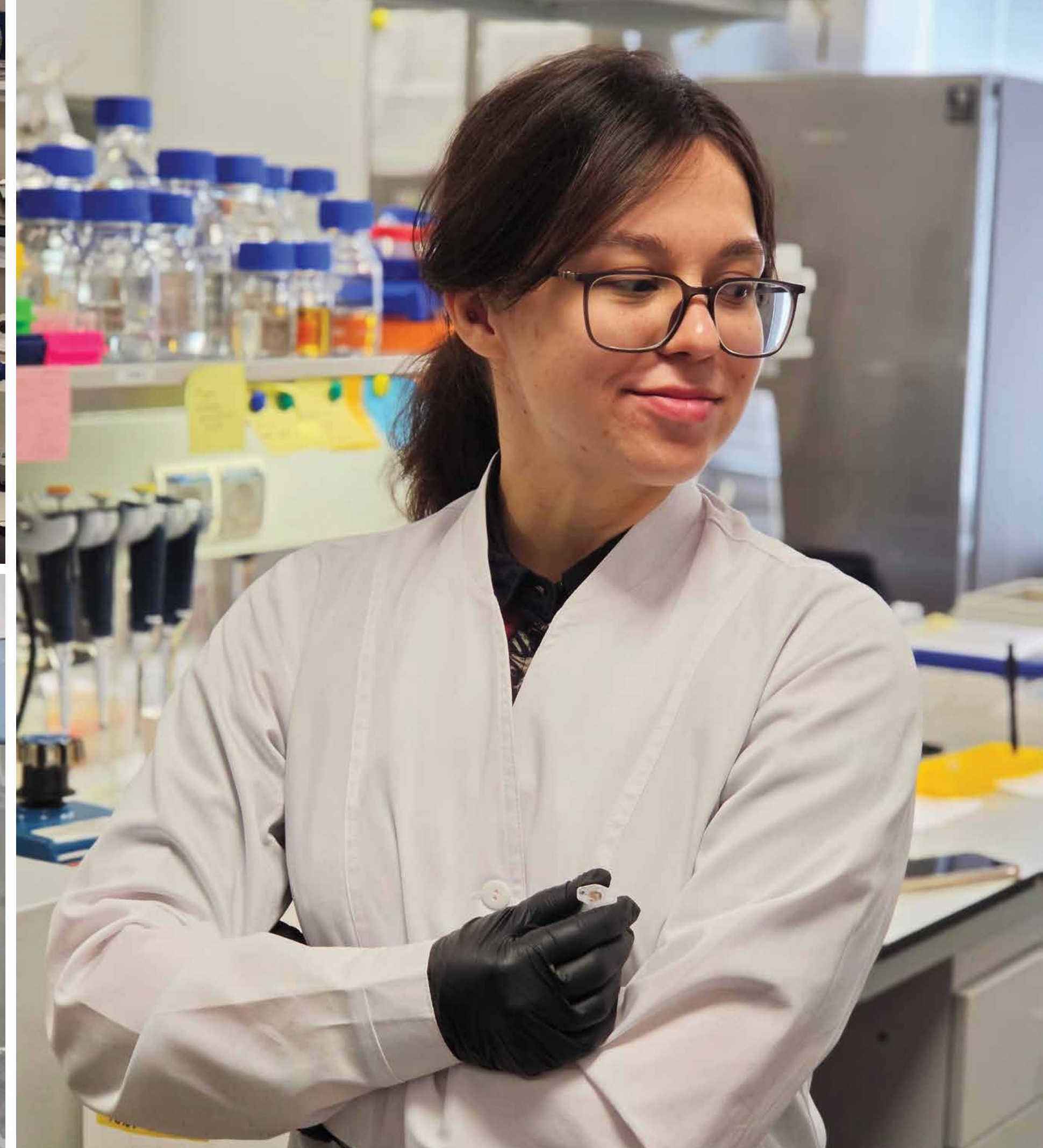


**Metabolite
analysis**

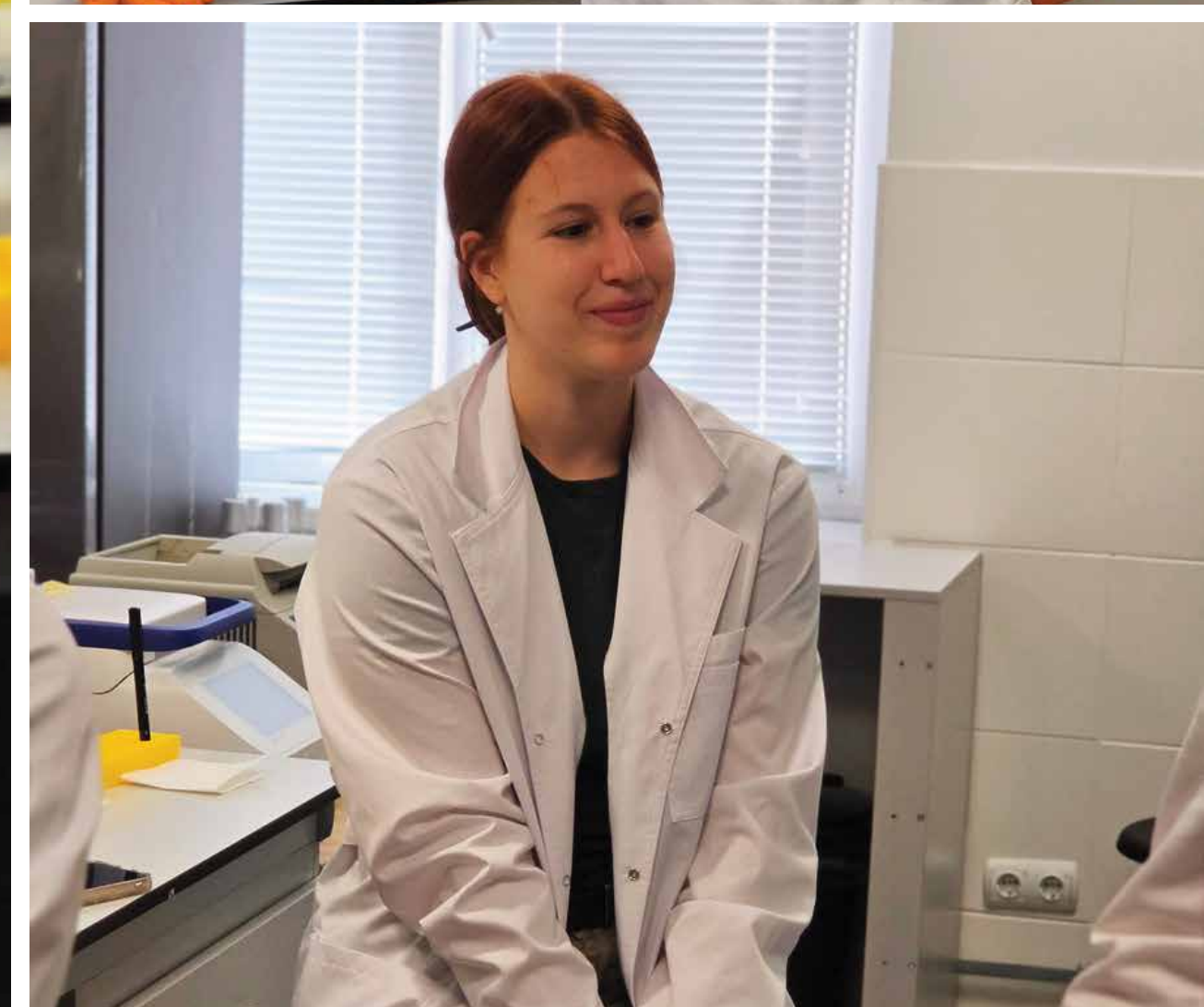






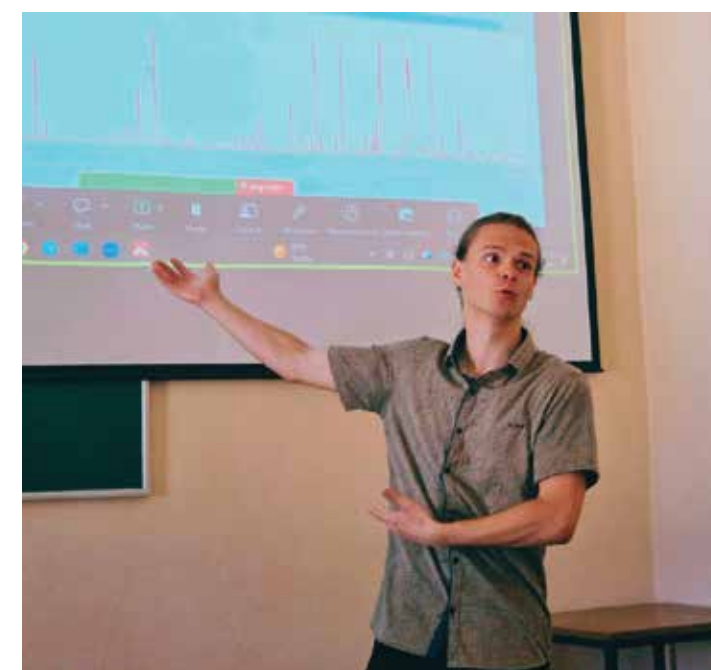






LC-MS Analysis

Results Presentation





Tustan Fortress

Teambuilding Activities



Teambuilding

Activities



Teambuilding Activities



Summer School Merch Set



Badge,
Program &
Certificate



T-shirt



Water bottle



Pencil &
Pen



Lanyard



Notebook



Tote bag



- **Saarland University**
- **Helmholtz Institute for Pharmaceutical Research Saarland (HIPS)**
- **Explogen LLC**
- **Ivan Franko National University of Lviv**

FUNDED BY:



Bundesministerium
für Forschung, Technologie
und Raumfahrt



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