

Information brochure



Ausbau analytischer Datenbanken, Erhebung und bundesweite sowie internationale Bereitstellung von analytischen Daten, pharmakologischen Daten, Metabolitenspektren und Referenzmaterialien für neu auf dem Drogenmarkt auftretende Stoffe

EU project to collect
analytical and
pharmacological data
of new (psychoactive) substances
for police and customs
laboratories

EU-Project NETZWERK ADEBAR

The NETZWERK ADEBAR project (12/2023-11/2027) is a German cooperation project funded by the European Union between the Federal Criminal Police Office (BKA), seven state criminal police offices (Bavaria, Berlin, Baden-Wuerttemberg, Hesse, North Rhine-Westphalia, Rhineland-Palatinate, Schleswig-Holstein), the German Customs and the universities of Freiburg, Mainz, and Münster. NETZWERK ADEBAR continues the work of the successful predecessor projects ADEBAR (07/2017-06/2019) and ADEBAR *plus* (09/2019-02/2023) and has been expanded by the fields of electrochemical synthesis of NPS degradation products (metabolites) and their comparison with metabolites from body fluids.

In this project, analytical data of recently emerging substances on the drug market will continuously be collected to supplement national, European, and worldwide databases. Unknown substances can be sent in from all police and customs forensic departments for the structural elucidation and characterization to the headquarter of NETZWERK ADEBAR project in Kiel. In addition, pharmacological and metabolite data will be collected for some of the NPS and new designer drug variants will be synthesized. The project combines the analytical and synthetic capacities of the partners in a competence network and ensures the centralized processing and quality assurance.

Project Aims

- coordination of structural analysis of recently emerging substances on the drug market
- collection and publication of valid analytical data for the unambiguous identification
- unambiguous identification of isomeric compounds especially from the annexes of the National Narcotics Law
- provision of reference material for all police and customs laboratories in Germany
- synthesis and characterization of new designer drug variants
- collection of pharmacological parameters for NPS and designer drug variants
- electrochemical synthesis of NPS degradation products (metabolites) and their comparison with the occurrence in body fluids
- conducting Round Robin Tests for new psychoactive substances for comparative laboratory tests in Germany
- organization of a symposium with an analytical focus for employees of all German police and customs forensic laboratories
- expansion of the internationally accessible, web-based database platform NPS Data Hub which was developed in the ADEBAR projects
- accompaniment of legislative projects and amendments in the fields of new psychoactive substances (NPS) and narcotics
- close cooperation with the EMCDDA/EUDA

Submission of Substances

For the structural elucidation, sample quantities of approx. 500 mg are required. For larger quantities (≥ 10 g), reference material can be produced and provided to German police and customs laboratories with a certificate of analysis. Furthermore, mixtures of substances with unknown components can be sent in which are purified within the project to identify the individual components. A form for submitting substances can be requested from the German headquarter.

Project Implementation

The administrative management of the NETZWERK ADEBAR project towards the EU is carried out by the BKA. The scientific management and coordination of the practical and content-related tasks is carried out by the State Bureau of Criminal Investigation Schleswig-Holstein. It coordinates the analysis activities as well as the exchange of substances between the project partners and publishes the data and results.

Publication of Results and Data

Once the substance characterization has been completed the results are communicated. The spectra are published as an analytical report together with the analytical data converted into universal electronic formats via a national forensic forum of the GTFCh, the European Database on New Drugs of the EMCDDA/EUDA and the NPS Data Hub.

Additional Subprojects

At the Institute of Forensic Medicine at the University of Freiburg receptor binding affinity and intrinsic activity for newly emerged and specifically synthesized designer drugs are determined. The pharmacological data are essential parameters for the evaluation of the psychotropic effect and potency of the designer drug variants. In another subproject at the Institute of Analytical Chemistry at the University of Münster, metabolites will be electrochemically synthesized from designer drugs, their structure elucidated, and their analytical data will be collected. Subsequently this data of possible metabolites will be compared to real samples and provided to all forensic-analytical laboratories. Starting materials for these investigations are designer drugs from the ADEBAR projects, designer drug variants specifically synthesized at the Institute of Organic Chemistry at the University of Mainz which could emerge on the drug market in the future from further development of designer drugs as well as substances purchased from online stores. Furthermore, the functionality of the NPS Data Hub (www.nps-datahub.com), the international publication database of the analytical data, free of charge for every forensic analytical laboratory will be further developed.



The project NETZWERK ADEBAR is co-funded by the Internal Security Fund of the European Union (grant no.: ISF-5793-23-0049).

EU-Project NETZWERK ADEBAR

Scientific Headquarter:

Dr. Sebastian Hamer, Dr. Svenja Fischmann and
Dr. Folker Westphal

State Bureau of Criminal Investigation Schleswig-Holstein
Forensic Science Institute (432, Narcotics/Toxicology)
Mühlenweg 166, 24116 Kiel, Germany
Tel. 0049 431 160-44325

info@projekt-adebar.eu
www.projekt-adebar.eu
doi:10.1002/dta.3280