



What is ARMADILLO?

Description:

ARMADILLO is an EU-funded project designed to develop a portable, easy-to-use toolkit for detecting GHB (Gamma-Hydroxybutyrate) in urine, saliva, and beverages. By integrating advanced optical spectroscopy and electrochemical techniques, ARMADILLO aims to support Law Enforcement Authorities (LEAs) and forensic institutes in combating drug-facilitated sexual assaults (DFSA) and improving forensic evidence collection.

Project Context and Importance:

GHB is a central nervous system depressant often used in drug-facilitated crimes like sexual assault. Its colorless, odorless properties make it difficult to detect, while it is metabolized quickly, complicating timely detection using traditional methods. Law enforcement and forensic experts need rapid, reliable, and field-deployable tools for the detection of GHB in various matrices, such as bodily fluids (urine and saliva) and beverages, to ensure prompt and accurate evidence collection.

The Problem:

- GHB and its analogs (e.g., GBL, 1,4-BD) have become commonly used in date rape drug-related crimes.
- They are often undetectable in routine toxicological screenings.
- Current methods are slow, requiring specialized labs and long wait times, leaving many perpetrators unaccountable.

ARMADILLO aims to solve this problem by providing fast, portable tools that can detect GHB on-site, whether in bodily fluids or beverages, enabling quicker investigations and helping to prevent these crimes.

ARMADILLO's Impact

ARMADILLO will not only enhance the tools available to LEAs and forensic institutes but also strengthen the EU's ability to prevent and respond to drug-facilitated sexual assault (DFSA) crimes.

Improved Evidence Collection

Reliable and Court-Admissible Evidence:

ARMADILLO's detection systems will produce forensic-grade results, ensuring the evidence collected is reliable, accurate, and admissible in legal proceedings.

Enhanced Detection in Multiple Matrices:

The toolkit will be able to detect GHB in:

- Bodily Fluids (Urine and Saliva): For immediate, on-site testing.
- Beverages: Detecting GHB in drinks (alcoholic and non-alcoholic) to prevent drink spiking and support DFSA investigations.

Three Key Use Cases



1. GHB Detection in Bodily Fluids:

Fast and precise identification of GHB concentrations in bodily fluids (Urine and Saliva) which is essential for investigating drug-facilitated crimes such as sexual assault. The objective is to use a portable optical reader that can identify GHB-specific biomarkers in bodily fluids within minutes.



2. GHB Detection in Beverages:

Detect GHB in beverages at social venues, to prevent drug-facilitated assaults before consumption. This will be achieved through a portable device combining electrochemical sensors and optical spectroscopy, designed for on-site detection of GHB in drinks.



3. Risk-Based Prevention Framework:

Using data analytics and AI, ARMADILLO will support LEAs in identifying high-risk areas for GHB-related crimes, helping to prevent drug-facilitated violence proactively. This can be achieved by analyzing various data sources to identify hotspots for GHB crimes and support law enforcement in preventing such incidents.



Meet the Consortium

The ARMADILLO project consortium consists of 17 partners from 10 different countries across Europe. The consortium includes a diverse range of organizations, such as research and technology organizations (RTOs), small and medium enterprises (SMEs), law enforcement agencies (LEAs), and universities. These partners bring together a wide array of expertise in areas such as forensic science, technology development, law enforcement, data analysis, and AI.



Join Us in Advancing Forensic Science

Get Involved:

ARMADILLO is working to create safer environments by providing LEAs with the tools they need to fight drug-facilitated crimes. Be part of the project and learn more about how ARMADILLO is shaping the future of forensic science.

Contact Information:

For more information, visit our website:
<https://armadillo-project.eu/>

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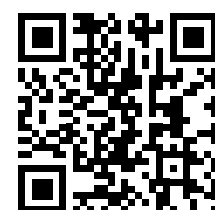
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Revolutionizing GHB Detection

Empowering Law Enforcement and Forensic Institutes with Cutting-Edge, Portable Detection Solutions

Visit our website and follow us on social media to learn more about the next-generation tools for crime prevention and forensic science.



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“Innovating
Forensic Science
for Safer
Communities”