HARMONY ALLIANCE

A call to leverage big data to accelerate blood cancer research

OUR MANIFESTO

Big Data has proven to offer new insights that can contribute to advances in novel therapies and more efficient medicines. The **HARMONY Alliance** urges researchers across the globe to break data silos and embrace cooperation to foster blood cancer research. It takes one missing piece of data to eureka.

Data is knowledge. Access to data gives scientists and healthcare professionals insights into disease characteristics and correlations between different biomarkers. Today, artificial intelligence algorithms are already reimaging research in many disciplines of life sciences and medicine, and could help us harness the full power of data. Thankfully, one barrier stands in the way: data silos. However, this can be easily overcome if we start to cooperate closer and share data within a secure and trusted ecosystem.

A spark for breakthroughs

The HARMONY Alliance has been working to collect data and speed up research on Hematologic Malignancies for the past five years. Over 140 organizations from 19 European countries already share the HARMONY Alliance mission: personalized treatment for blood cancer patients.

Working in such an outstanding team, we have managed to collect a very large amount of data sets from all over Europe. And more are on the way!

The innovative HARMONY Big Data Platform, a central analytical infrastructure, was launched in 2017 to harmonize the data sets donated by European hospitals, academic institutions conducting clinical trials, and pharmaceutical companies, among other data custodians. Today, the HARMONY data lake is one of the largest databases of its kind, and still growing: the Alliance has already identified over 156,000 cases not only from Europe, but from all around the world.
In addition, careful procedures have been installed to ensure the anonymization and the quality of the data. HARMONY data scientists have developed sophisticated methods for data harmonization and analysis.

This moonshot continues, and you can be a part of it!

> 140 Partners/Members organizations from 19 countries

14
Key targeted blood cancers

Data lake > 156,000 patient records identified

Unique research infrastructure

- Offering custom developed state-of-the-art Big Data analytic and AI services to interpret and investigate large amounts of data in a very short period of time
- De-facto anonymization applied to remove any personally identifiable information
- Highest standards of data privacy and security
- Ensured compliance with EU data protection laws

Activities

- Big Data Research Projects
- Study-a-thons discussing Key Research questions
- Delphi studies and Delphi Hackathon defining Core Outcome Sets
- Ongoing Multi-Stakeholder interactions
- Effective Communications and Dissemination

HARMONY & HARMONY-PLUS

Our manifesto for strengthening the role of data in medical sciences

The use of big data for scientific research only keeps gaining momentum. This was not possible before digitalization in healthcare and life sciences, but now that paper files have been transformed into electronic records, even the smallest data entry can be reused for scientific purposes. Since we have established a secure data platform, developed suitable algorithms, and met all the legislative and GDPR requirements, we have convinced early innovators.

What we need now is a new collaboration mindset.

Therefore, we call all stakeholders in healthcare and life sciences to:

Re-use your data

We cannot afford to waste the power of data. The future of medicine is data-driven science and for this secondary use of data is key.

Collaborate within trusted networks

We ensure the highest security and privacy standards to share data. We not only connect data, we also connect people through the creation of multidisciplinary teams.

Help us unlock knowledge for social good

Only high-quality data lakes covering all patient groups can contribute to precise research outcomes.

Be a changemaker in blood cancer research

We have made the first big steps. Over the last 6 years, we have created a unique infrastructure and community of experts for big data research on Hematologic Malignancies with over 156,000 identified data sets. Working with our Big Data Platform has already led to gaining first insights in AML, CLL and MM, presented in renowned scientific papers. It is now time to get to the next level of data analysis across all Hematological Malignancies!

The HARMONY Alliance is calling for new members who are open to collaborate and who can and are willing to donate data.

Our key targeted blood cancers

Acute Leukemias

- **ALL** — Acute Lymphoblastic Leukemia
- **AML** — Acute Myeloid Leukemia
- **Childhood HMs** — Childhood Hematologic Malignancies

Chronic Leukemias

- **CML** — Chronic Myeloid Leukemia
- **CLL** — Chronic Lymphocytic Leukemia
- **MDS** — Myelodysplastic Syndromes
- **PV** — Polycythaemia Vera
- **ET** — Essential Thrombocythemia
- **Myelo-fibrosis**

Lymphomas

- **NHL** — Non-Hodgkin Lymphoma
- **HL** — Hodgkin's Lymphoma
- **WM** — Waldenström Macroglobulinaemia

Monoclonal Gammopathies

- **MM** — Multiple Myeloma
- **Amyloi-dosis**

Connect with us

by sending us an email to
communications@harmony-alliance.eu
to set up an appointment.

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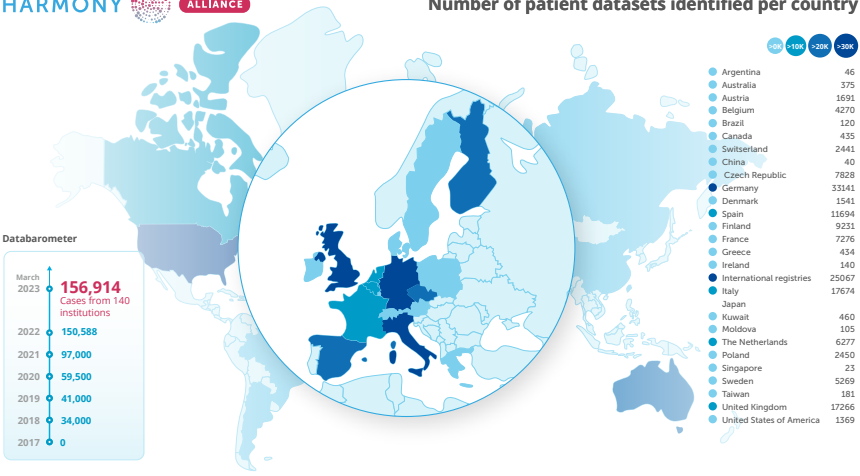
Number of patient datasets identified per country

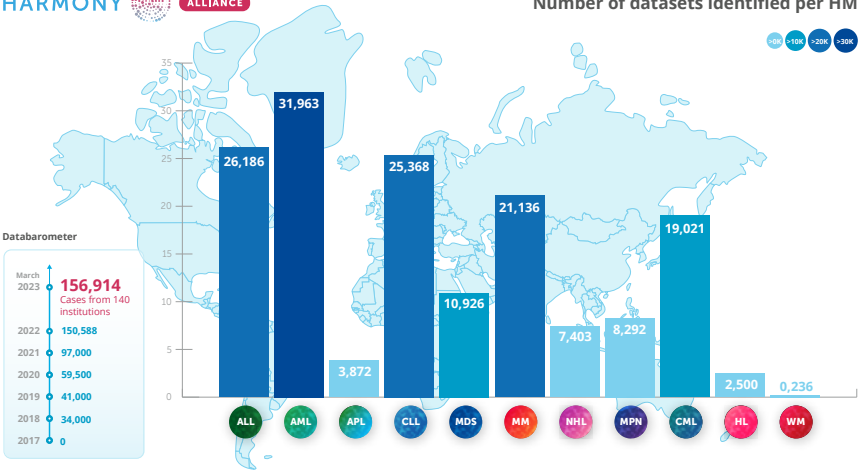


Databarometer

March 2023	**156,914**	Cases from 140 institutions
2022	150,588	
2021	97,000	
2020	59,500	
2019	41,000	
2018	34,000	
2017	0	

HARMONY ALLIANCE

Number of datasets identified per HM



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HARMONY ALLIANCE

Join the largest European Public-Private Partnership for Big Data in Hematology

Join us in creating the next generation of care for blood cancer patients

Last updated March 2023.

“**Sharing anonymized data** in a secure way, for research purposes, is like a new form of **blood donation** in the era of **digitalization and Big Data.** In result, it has the power to **save human lives.**”

The HARMONY Alliance is a public-private European Network of Excellence for Big Data in Hematology. Our mission is to unlock and spread valuable knowledge on hematologic malignancies (blood cancers) among a large number of stakeholders, with the goal to harness and mine Big Data to speed up the development of improved treatments for patients and more effective treatment strategies.

The HARMONY Alliance consists of two projects funded through the Innovative Medicines Initiative (as of 2022 called IHI, Innovative Health Initiative): HARMONY and HARMONY PLUS. Funding is received from the IMI 2 Joint Undertaking and is listed under grant agreement for HARMONY No. 116026 and grant agreement for HARMONY PLUS No. 945406. This Joint Undertaking receives support from the European Union's Horizon 2020 Research and Innovation Programme and the European Federation of Pharmaceutical Industries and Associations (EFPIA).