

Facts about Austria? What else?



BBMRI.AT THE AUSTRIAN NATIONAL NODE OF BBMRI-ERIC





Medical University of Vienna
MedUni Wien Biobank

Johannes Kepler University
Biobank

University of Vienna
(BBMRI.at ELSI Experts)

Weterniary Medicine
VetBiobank

Medical University of Graz
Biobank Innsbruck

BBMRI.AT#1: 2013 - 2018 3.50m € (5 yrs) BBMRI.AT#2: 2018 - 2023 3.65m € (5 yrs) BBMRI.AT#3: 2023 - 2028 4.10m € (5 yrs)

Supported & funded by the Federal Austrian Ministry of Education, Science & Research

BBMRI.AT – WHAT WE DID (2008 – 2023)



- ➤ Pioneering role in Austria and BBMRI-ERIC in several fields:
 - A leading role in developing and implementing
 European and international biobanking-related
 standards (i.e. CEN and ISO standards on sample preanalytics)
 - The first node to establish quality management cross-audits of its biobanks and successfully implemented virtual audits during the COVID-19 pandemic
 - The first node to establish a "Central Access/Contact Point" for requests (e.g. samples/data and participation in call proposals)

2008 – 2012 BBMRI - Preparatory Phase

> 2013 -2018 BBMRI.AT#1

2018 - 2023 BBMRI.AT#2

2023 - 2028 BBMRI.AT#3

BBMRI.AT – WHAT WE DID (2008 – 2023)



- > A frontrunner in the field of "trusted and secure environment for patient data"
- > Biobanking for **One Health** (Vet Med Uni)
- BBMRI.at biobank partners successfully contributed to the COVID-19 research providing cohorts and involvement in collaboration projects with academia and industry
- ➤ A pioneer in public engagement (e.g. biobanking courses for children and the public, citizen-expert-discussions)

BBMRI.AT – WHAT WE DID (2008 – 2023)



> BBMRI.at interacts with different international programs/initiatives and established the Austrian Cohort Initiative



CHANGING ROLE OF BIOBANKS



2000: The age of population cohorts and GWAS studies



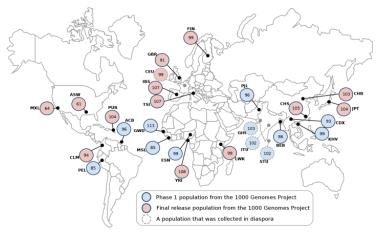
As of September 2019 the GWAS Catalog contains more than 157,000 associations from 4220 publications

Buniello A, MacArthur JAL, Cerezo M, Harris LW, Hayhurst J, Malangone C, McMahon A, Morales J, Mountjoy E, Sollis E, Suveges D, Vrousgou O, Whetzel PL, Amode R, Guillen JA, Riat HS, Trevanion SJ, Hall P, Junkins H, Flicek P, Burdett T, Hindorff LA, Cunningham F and Parkinson H.

The NHGRI-EBI GWAS Catalog of published genome-wide association studies, targeted arrays and summary statistics 2019.

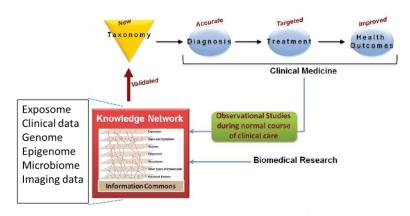
Nucleic Acids Research, 2019, Vol. 47 (Database issue): D1005-D1012.

2008: The age of population cohorts and WGS studies



GigaScience. 2015;4:53. doi:10.1186/s13742-015-0095-0. https://gigascience.biomedcentral.com/articles/10.1186/s 13742-015-0095-0, CC BY 4.0,

2011: The age of clinical cohorts and Precision medicine multi –omics and health data



NATIONAL RESEARCH COUNCIL

OF THE NATIONAL ACADEMIES

0.752.780

CHANGING ROLE OF BIOBANKS



2019: The age of health data and AI

the age of digital interdependence

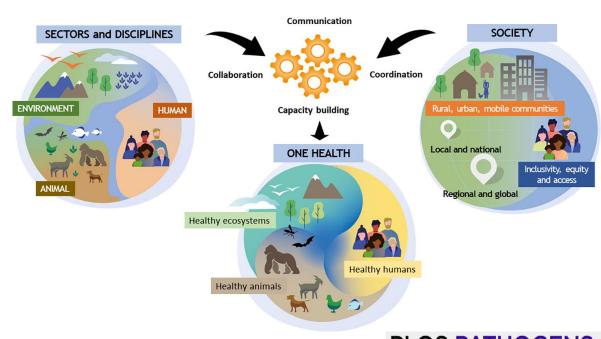
Report of the UN Secretary-General's High-level Panel on Digital Cooperation



DATA QUALITY

DATA ACESS

2022: The age of One Health and pandemic preparedness



PLOS PATHOGENS

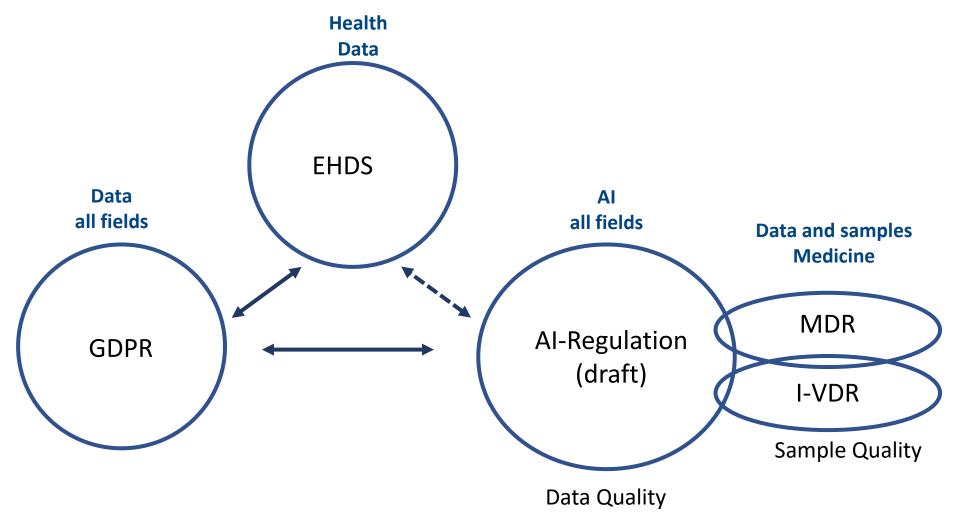
Hederal Ministry

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Federal Ministry
 Republic of Austria
 Education, Science
 and Research

DEVELOPING LEGAL AND REGULATORY ENVIRONMENTS





CHALLENGES FOR THE BIOBANKS



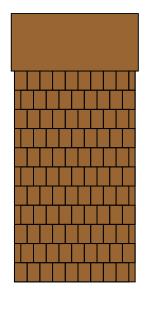
- Digital transformation of health systems
- Key resource to manage (future) pandemics
- Increasing role of One Health
- Sample and Data Quality

ARE BIOBANKS DELIVERING WHAT THEY SHOULD/COULD

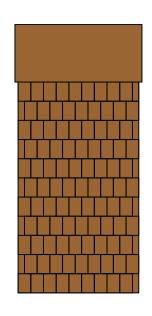


Biobank

USERS







Patient

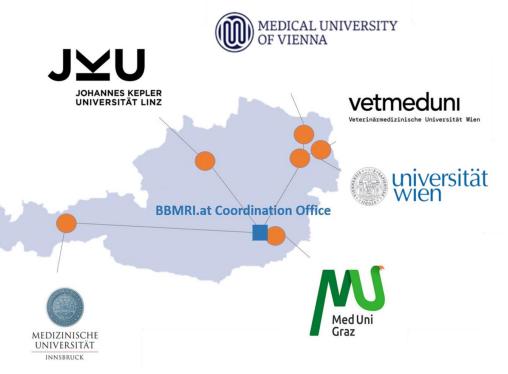
Clinician

Society

BBMRI.AT #3 WORK PACKAGES & PIs



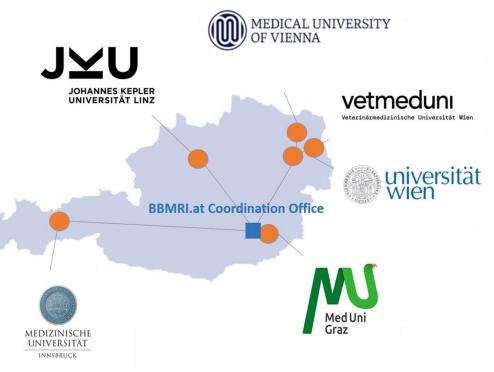
- WP1: IT Architecture and Data Integration of Austrian Biobanks Georg Göbel, Medical University of Innsbruck
- WP2: Legal and Regulatory Challenges and Opportunities
 Nikolaus Forgó, University of Vienna
- WP3: Quality management
 Helmuth Haslacher, Medical University of Vienna
- WP4: Environmental Sustainability and Biobanking Monika Valjan, Biobank - Medical University Graz
- WP5: Veterinary Biobanks: Potentials & Comparative Medicine/'One Health'
 Ingrid Walter, University of Veterinary Medicine, Vienna
- WP6: Coordination of the National Network & National Node Operation
 Luka Brcic, Cornelia Stumptner, Medical University Graz



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THE ROLE OF BIOBANKS



Enable access to quality samples and data

by high-level collaboration

Providing access to knowledge and tools

Performing education and training





ZATLOUKAL



https://youtu.be/i4-sPKITbE0