ATP BR
ATLAS TUMORAL DA POPULAÇÃO BRASILEIRA

LAUNCH EDITION
NOVEMBER 2026
FOR NETWORK MEMBERS

NATIONAL PROJECT · CANCER GENOMICS

An atlas of the tumors of the people of Brazil.

The Brazilian Population Tumor Atlas connects data, institutions and researchers across the country to reveal the molecular features of the cancers that affect our population.

Official launch · November 26, 2026 · Brazil's National Day Against Cancer

INCA · SUS · MINISTÉRIO DA SAÚDE

FUNDING AND SUPPORT

GENOMAS BRASIL · CNPq

TO THE MEMBERS OF ATPBR

A molecular portrait of cancer, made by and for Brazil.

The launch of ATPBR on November 26 is an important step toward expanding Brazil's role in cancer genomics research and in producing scientific knowledge that reflects the characteristics of our population.

The initiative is coordinated by the Brazilian National Cancer Institute (INCA), the platform's coordinating and maintaining institution, through its Bioinformatics and Computational Biology Laboratory, in collaboration with the Brazilian Cancer Genome Consortium and the participating institutions, with support from the Ministry of Health's Genomas Brasil Program and CNPq.

ATPBR Coordination
Rio de Janeiro, November 2026

FOUR PILLARS

01 Map Brazilian tumors
An atlas of the molecular basis of the cancers in our population.

02 Integrate clinical and molecular data
Genomics, transcriptomics, epigenomics and clinical data side by side.

03 Build a secure national repository
Responsible governance and ethical access to high-quality data.

04 Reduce inequalities in care
Evidence for policies and therapies suited to Brazil's diversity.

THE COLLECTION TODAY · NOV 2026

2,692
patients with records on the platform

10
cancer types

Embargo
most of the data belongs to ongoing studies

- Hereditary breast 1,569
- Acute lymphoblastic leukemia 492
- Cervical and precursor lesions 168
- Endometrial 153
- Acute myeloid leukemia 94
- High-grade serous ovarian 78
- Anal and precursor lesions 63
- Prostate 48
- Esophageal 15 ●
- Penile 12

● data already available on the platform · the rest are under scientific embargo

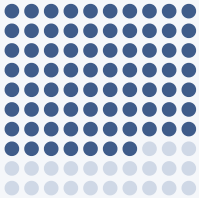
OUR MISSION

To advance research and precision medicine in Brazil, turning Brazilian data into knowledge that supports biomarkers, new diagnostic and therapeutic strategies, and fairer health policies.

THE GAP WE WANT TO CLOSE

Why an atlas of the Brazilian population?

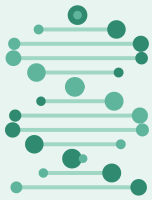
Much of what we know about the genetic alterations linked to cancer comes from studies in Europe, the United States and some Asian populations. That work revolutionized oncology, but Latin American populations, and the Brazilian population in particular, remain underrepresented in the major international genomic databases.



77%

of the patients with data in TCGA, the leading global reference in cancer genomics, were white.

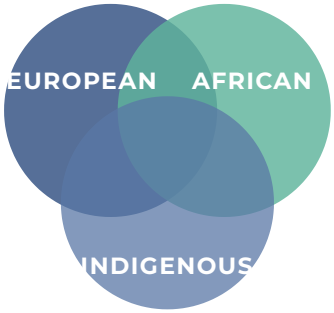
Spratt et al., JCO Precision Oncology, 2016



8.7 M

previously undocumented genetic variants were found in 2,723 Brazilian genomes.

Nunes et al., 2025



A UNIQUE POPULATION HISTORY

European, African and Indigenous ancestries, in proportions that vary widely between individuals and regions.

- It can shape how often genetic variants occur and how they relate to cancer risk.
- It helps explain molecular differences between tumors.
- It matters when assessing whether biomarkers apply.

NOTE ATPBR does not measure cancer incidence, prevalence or regional distribution. Its focus is the molecular characterization of the tumors studied.

BUT IT IS NOT ONLY ABOUT GENETICS

Cancer also bears the mark of where we live.

Cancer develops through a complex interplay of genetic, environmental, behavioral and social factors, and Brazil has its own characteristics that must be taken into account.

65 °C

IARC/WHO classifies drinking very hot beverages as probably carcinogenic to humans (Group 2A).

A BRAZILIAN EXAMPLE

Chimarrão and esophageal cancer

Chimarrão, a hot mate infusion, is a cultural habit especially common in southern Brazil. Epidemiological studies show that frequently drinking beverages above 65 °C is associated with a higher risk of esophageal cancer.

The concern is the temperature of the drink, not chimarrão itself.

IARC Monographs, vol. 116 (2018); Lubin et al., Cancer Epidemiol Biomarkers Prev (2014).

OTHER FACTORS THAT VARY ACROSS REGIONS

Infections
Differences in the prevalence of infectious agents.

Occupational exposures
Work and the environment where it happens.

Lifestyle
Diet, consumption and local customs.

Access to care
Conditions that affect diagnosis and outcomes.

> We cannot assume that findings from other populations apply directly to Brazilian patients. **We need data that let us test whether they do.**

MUCH MORE THAN FILE STORAGE

Data that become shareable knowledge.

ATPBR is a research infrastructure. It receives data generated at different institutions, checks their quality and ethical context, organizes metadata, processes files with standardized methods and integrates the results into query and analysis tools. Previously scattered studies become comparable and reusable, with full traceability.

01

Receive and catalog

Projects, clinical metadata and omics files, organized in a common data model.

02

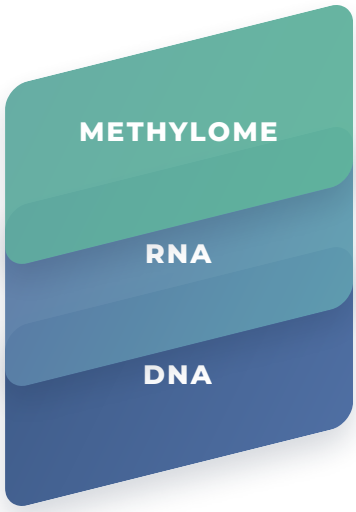
Process and integrate

Versioned pipelines and uniform genomic references produce harmonized data.

03

Explore and reuse

Results that can be queried and analyzed, according to each study's permissions.



INTEGRATED MULTI-OMICS LAYERS

Genome WGS · exome · panels	Somatic and germline mutations, copy-number variation and structural alterations.
Transcriptome RNA-seq	Which genes are active in the tumor, activated pathways and potential response markers.
Epigenome DNA methylation	How methylation patterns modulate gene expression without changing the DNA sequence.

WHO CAN CONTRIBUTE

Any tumor type

The cancer types in the current collection are not a closed list. ATPBR accepts data on any neoplasm from people living in Brazil, provided scientific, ethical and institutional requirements are met.

WHAT DATA

Past or new studies

Hospitals, universities and research groups from every region can deposit published studies, historical cohorts and new projects, with DNA, RNA and epigenomic data and associated clinical information.

Inclusion of a dataset depends on technical quality, ethics documentation, consent conditions and sharing permissions. Submitting data does not by itself authorize its release.

FROM DEPOSIT TO DISCOVERY

Integrate, protect and reuse data.

Source institutions are responsible for collection, consent and removal of direct identifiers. ATPBR checks documentation and integrity, records provenance and runs reproducible analyses.

1	**Submission**	Project, coded patients, files and use permissions.	SOURCE INSTITUTION
2	**Validation**	Technical, ethical and documentary checks. Open issues block further use.	ATPBR CORE TEAM
3	**Processing**	Bioinformatics pipelines harmonize data and produce reproducible results.	ATPBR CORE TEAM
4	**Release**	Results released according to each study's rules and data sensitivity.	GOVERNANCE

RESPONSIBLE ACCESS

Data do not travel. Research goes to the data.

OPEN LEVEL

Public query

Processed, authorized results are available to explore and visualize on the atpbr.com.br portal.

CONTROLLED LEVEL · DATA VISITING

Analysis in a secure environment

With approval from the Data Access Committee, researchers analyze the data in an instance provided by ATPBR. The data stay on the platform; only results leave. A federated mode is planned for a later stage.

Researcher approved request → **Secure ATPBR instance** data + analysis → **Results** aggregated

× NO DOWNLOAD OF INDIVIDUAL-LEVEL DATA

AFTER THE EMBARGO Even after the scientific embargo ends, access continues to follow the ethical, legal and governance conditions that apply to each dataset.

WHY ARE THE DATA NOT PUBLIC YET?

Producing data is only the start of research.

The data are already being added to the platform, but many of the responsible researchers are still carrying out their analyses. There is a long road between sequencing and a consolidated finding.

01
Sequencing
Genomic data are generated.

02
Processing
Quality control and pipelines.

03
Molecular alterations
Identifying what changes in the tumor.

04
Biological relevance
What those alterations mean.

05
Clinical associations
Links to patient characteristics.

06
Validation
In other datasets or by experimental methods.

07
Peer review
Assessment by independent experts.

08
Publication and release
Data released with the relevant authorizations.

The role of peer review

Before results are presented as findings, independent experts assess the work. They often ask for additional analyses, clarification of limitations or revised interpretations. This review is essential to the credibility of science, especially when results may one day influence diagnosis and treatment.

REVIEWERS ASSESS

- ✓ the quality of the methods
- ✓ the consistency of the analyses
- ✓ the strength of the evidence
- ✓ whether the conclusions follow from the results

Organize and integrate now, without immediate release.

Datasets under embargo will not be made public before the relevant authorizations are in place. The embargo protects:

Patients
and the confidentiality of their information

Data-generating groups
and their rights over the data they produced

Science
and the scientific publication process

COMPLETED AND AVAILABLE RESEARCH

Esophageal cancer: data that are already science.

The esophageal cancer data from Brazilian patients now available on the platform were generated by two published studies.

15 CASES · DATA AVAILABLE NOW ON THE ATPBR PLATFORM

2018

TRANSLATIONAL ONCOLOGY

Mutations, Differential Gene Expression, and Chimeric Transcripts in Esophageal Squamous Cell Carcinoma Show High Heterogeneity

Mutations, gene expression and chimeric transcripts reveal high molecular heterogeneity.

↗ sciencedirect.com/science/article/pii/S1936523318303590

2020

JOURNAL OF LEUKOCYTE BIOLOGY

High infiltration of B cells in tertiary lymphoid structures, TCR oligoclonality, and neoantigens are part of esophageal squamous cell carcinoma microenvironment

The immune microenvironment: B cells, T-cell receptors and potential neoantigens.

↗ doi.org/10.1002/JLB.5MA0720-710RRR

ABOUT THE ATPBR PROJECT

THE LANCET REGIONAL HEALTH – AMERICAS · FEB 2026

The Brazilian Population Tumor Atlas Project: addressing representation in cancer genomics in Brazil

Boroni M, Conteville LC, Ribeiro Pinto LF, Viola JPB · doi:10.1016/j.lana.2026.101397

THE CONVERSATION · APR 2026

Atlas Tumoral: projeto do INCA impulsiona pesquisa sobre o câncer ao melhorar dados genômicos da população brasileira

Boroni M, Viola JPB, Conteville LC, Ribeiro Pinto LF

IN THE DIGITAL VERSION The titles and addresses on this page are clickable.

FROM BOA VISTA TO PORTO ALEGRE

A network that spans Brazil.



60+
participating institutions

43
cities

20
states, in all 5 regions

North	6
Northeast	13
Central-West	3
Southeast	31
South	14

Circles show the number of institutions in each city.

RR
Rede Roraima (HGR/UNACON, Inst. Humaniza, Lab. Patologia RR, UFRR) · Boa Vista

AM
HEMOAM · Manaus

PA
HU João de Barros Barreto · Belém
Hospital Infantil Oncológico Octavio Lobo · Belém
Hospital Ophir Loyola · Belém

RO
Hospital de Amor da Amazônia · Porto Velho

MA
Hospital do Câncer Aldenora Bello · São Luís

PI
Hospital São Marcos · Teresina

CE
Instituto do Câncer do Ceará (ICC) · Fortaleza

RN
Liga Mossoroense de Combate ao Câncer · Mossoró
Liga Norte Riograndense Contra o Câncer · Natal

PB
Hospital Napoleão Laureano · João Pessoa

PE
HUOC/UPE · Recife
Hospital Dom Tomaz · Petrolina
Hospital de Câncer de Pernambuco · Recife
IMIP · Recife

BA
Hospital Manoel Novaes · Itabuna
Hospital Martagão Gesteira · Salvador
Hospital São Rafael · Salvador

DF
Hospital da Criança de Brasília José Alencar · Brasília
Hospital de Base do DF · Brasília

MS
Hospital Regional de MS · CETOHI · Campo Grande

MG
HC-UFMG · Belo Horizonte
HC-UFTM · Uberaba
HC-UFU · Uberlândia
Hospital Márcio Cunha · Ipatinga
Instituto Oncológico de Juiz de Fora · Juiz de Fora
Santa Casa de Belo Horizonte · Belo Horizonte
Santa Casa de Montes Claros · Montes Claros
Santa Casa de Passos · Passos

ES
Hosp. Est. Infantil N. S. da Glória · Vitória

RJ
HUGG/UNIRIO · Rio de Janeiro
Hospital Moncorvo Filho · Instituto de Ginecologia/UFRJ · Rio de Janeiro
INCA · Rio de Janeiro

SP
A.C.Camargo Cancer Center · São Paulo
Beneficência Portuguesa · São Paulo
CAISM/Unicamp · Campinas
GACC · São José dos Campos
HC Botucatu/UNESP · Botucatu
HC-FAMEMA · Marília
HC-FMRP-USP · Ribeirão Preto
Hospital Alvorada Moema · São Paulo
Hospital Amaral Carvalho · Jaú
Hospital GPACI · Sorocaba
Hospital Samaritano Higienópolis · São Paulo
Hospital Sírio-Libanês · São Paulo
Hospital de Amor · Barretos
ICESP · São Paulo
IOP/GRAACC/Unifesp · São Paulo
ITACI-USP · São Paulo
Santa Casa de Araçatuba · Araçatuba
Santa Casa de Marília · Marília
Santa Casa de São Paulo · São Paulo

PR
HC-UFPR · Curitiba
Hospital Erastinho · Erasto Gaertner · Curitiba
Hospital Nossa Senhora das Graças · Curitiba
Hospital Pequeno Príncipe · Curitiba
Instituto Presbiteriano Mackenzie · Curitiba
UOPECCAN · Cascavel

SC
Hospital São José · Criciúma
Hospital da Criança de Chapecó · Hosp. Regional do Oeste · Chapecó

RS
HU de Santa Maria/UFSM · Santa Maria
Hospital Geral de Caxias do Sul · Caxias do Sul
Hospital Nossa Senhora da Conceição · Porto Alegre
Hospital São Vicente de Paulo · Passo Fundo
Hospital de Clínicas de Porto Alegre · Porto Alegre
Santa Casa de Porto Alegre · Hosp. da Criança Santo Antônio · Porto Alegre

WHO DECIDES, WHO ADVISES, WHO EXECUTES

Governance with clear, complementary roles.

The model separates strategic, scientific and access decisions, independent advice and technical operations. INCA coordinates and maintains the platform, working with the participating institutions.

ATPBR CONSORTIUM · INCA AND PARTICIPATING INSTITUTIONS

DECISION-MAKING
Take decisions

CGN
National Governance Council

Strategy, policies, admission of centers and conflict resolution.

CCP
Scientific and Publications Committee

Reviews proposals and sets priorities, embargoes, authorship and publications.

CAD
Data Access Committee

Decides on controlled-access requests and monitors authorized uses.

ADVISORY
Cross-cutting support, no vote

CESP
Ethics, Society and Participation Committee

Patient perspectives, protection of groups and collective risks.

SAB
International Scientific Advisory Board

International standards, interoperability and scientific advice.

EXECUTION
Support, no vote

Executive Core and Operational Curation · LBBC/INCA

Receives, validates, processes and curates data, supports centers and serves as secretariat to the committees.

National by design. The committees bring together representatives of participating institutions from different regions. Membership is being defined.

Further reading. Boroni et al., The Lancet Regional Health – Americas (2026). doi:10.1016/j.lana.2026.101397

A LONG-TERM INFRASTRUCTURE

More than collecting data: integrating to understand.

Our goal is not simply to accumulate records but to build an infrastructure that integrates genomic data, clinical information and the characteristics of the Brazilian population.

WHY ATPBR EXISTS

To make sure the Brazilian population is not only a beneficiary of advances in precision medicine, but is also represented in the data that guide them.

What is in the tumors
Which molecular alterations are present in our patients' tumors.

Ancestry and exposure
How those alterations relate to ancestry and environmental exposures.

Course and response
What helps explain differences in disease course and treatment response.

The launch is the start of a long-term effort. Discoveries will come progressively as researchers complete, validate and publish their work.

WHY DEPOSIT YOUR DATA IN ATPBR

01 Harmonization
Quality control and recognized pipelines make your cohort comparable with other national studies.

02 New life for data
Published studies gain reach, visualization on the portal and recognition for the originating group.

03 Statistical power
Integrated cohorts overcome the limits of isolated studies and enable multicenter work.

04 Secure preservation
Structured storage protects the investment in sequencing from loss and fragmentation.

05 New collaborations
A national network of groups sharing questions, methods and references.

06 Impact on SUS
Less underrepresentation of Brazil in global genomics and evidence for precision medicine in the public health system.

HOW TO TAKE PART

Every group that deposits makes the atlas more Brazilian.

1

Contact the team

Present your study and ask about data and requirements.

2

Join

Formalize the participation of the institution and the lead researcher.

3

Ethics documentation

Ethics approval, consent conditions and use permissions.

4

Submission

Upload of metadata and files in the ATPBR data model.

5

Integration

Validation, processing and inclusion in the national atlas.

26 NOV

Official launch of ATPBR on Brazil's National Day Against Cancer, 2 p.m. (Brasília time), Moacyr Santos Silva Auditorium, INCA, Rio de Janeiro. Streamed live on **TV INCA**.

▸ **Watch live: gov.br/inca · event page**

Visit the portal atpbr.com.br

Contact

atpbr@inca.gov.br

Bioinformatics and Computational Biology Laboratory · INCA

ATP BR ATLAS TUMORAL DA POPULAÇÃO BRASILEIRA · INCA · SUS · MINISTÉRIO DA SAÚDE · GENOMAS BRASIL · CNPq Conselho Nacional de Desenvolvimento Científico e Tecnológico