









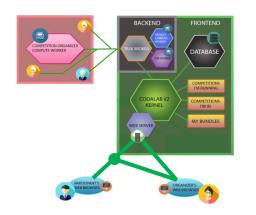
# HADACA – Health Data Challenge

Deconvolution methods to quantify tumor heterogeneity

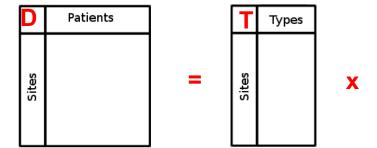


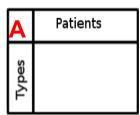
# Restitution on challenge #1

## Introduction to the challenge #2



1) How to use the challenge platform codalab?





2) Challenge #2 Starting kit

#### **CHALLENGE #2 - Files**

Learn the Details Phases

Participate

Results Public Submissions

Forums \*

Data

Files

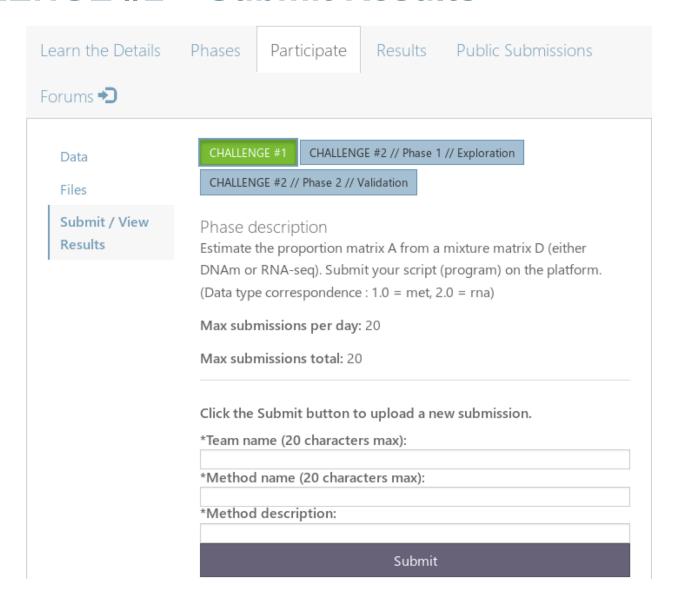
Submit / View Results

Download	Size (mb)	Phase
Starting Kit	0.270	#1 CHALLENGE #1
Public Data	173.181	#1 CHALLENGE #1
Starting Kit	0.270	#2 CHALLENGE #2 // Phase 1 // Exploration
Public Data	173.198	#2 CHALLENGE #2 // Phase 1 // Exploration

#### **CHALLENGE #2 - Starting Kit & Public Data**

- What files are in the starting kit:
  - ► starting\_kit\_p2.html:
  - a summary of the challenge with all the required informations
  - **▶** submission\_script\_p2.Rmd :
  - ▶ a Rmd file to modify with your code
  - this file generates the zip files to upload on Codalab
- What files are in public data:
  - ► DC2\_D\_met.rds : methylome data
  - ► DC2\_D\_rna.rds : transcriptome data

#### **CHALLENGE #2 – Submit Results**

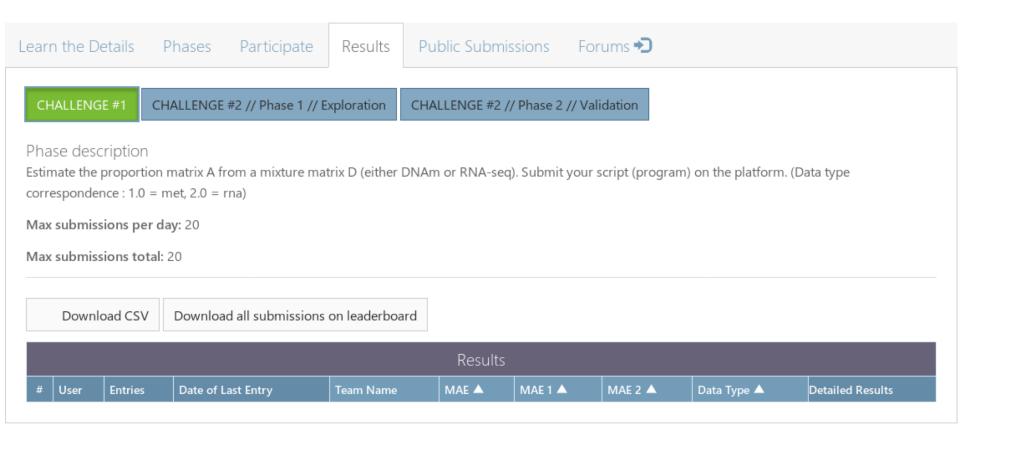


#### **CHALLENGE #2 – Submitted Results**

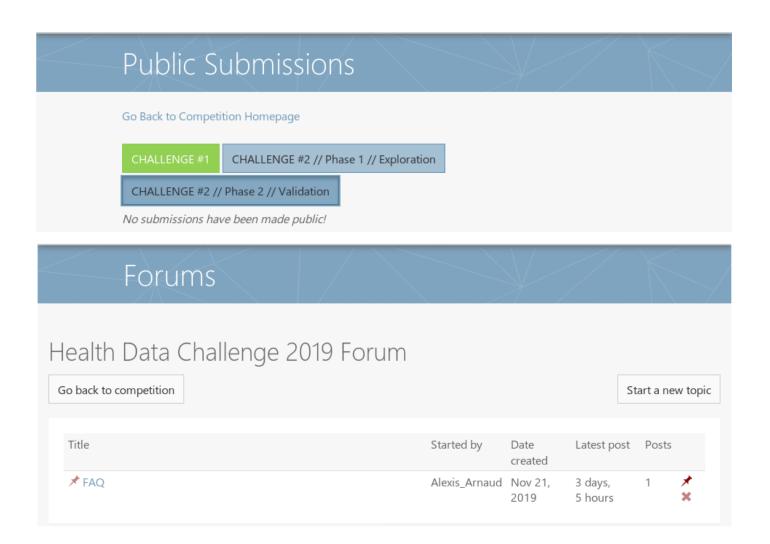
- What files are in the submited zip file (phase 1):
  - ► results.rds → your estimation of A
  - ► dataType.rds →the variable 'dataType' = both

- What files are in the submited zip file (phase 2):
  - **▶** program.R → a R file with :
    - your code inside the function 'program'
    - the variable 'dataType' = met or rna (based on your team name)
  - **▶** metadata → a file required by Codalab
    - use the one generated by the starting kit and don't modify it!

#### **CHALLENGE #2 – Leaderboard**

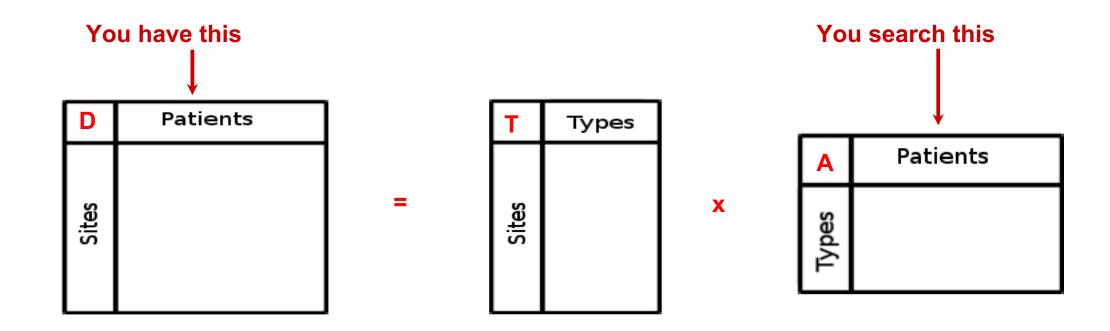


#### **CHALLENGE – Public Submissions & Forum**



### **CHALLENGE #2: STARTING KIT**

- ■Your goal: estimate the matrix A
- ▶The matrix A represents the proportion of each cell type in each patient.

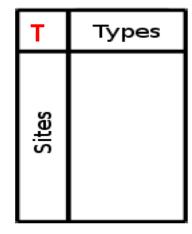


### **CHALLENGE #2: STARTING KIT**

#### **■** Data format

- RNAseq and DNA methylation
- ► 21,566 genes / 772,316 probes
- **▶** 30 patients
- ► ? cell types

D	Patients
Sites	



A Patients

X

#### **CHALLENGE #2**

	FEAM  A  DC2_Team_A
Avila Lobos Francisco Center for Medical Genetics, UGent Chuffart Florent INSERM BAHENA HERNANDEZ Silvia Yahel Uppsala University	A DC2 Team A
Chuffart Florent INSERM BAHENA HERNANDEZ Silvia Yahel Uppsala University	DC2 Team A
BAHENA HERNANDEZ Silvia Yahel Uppsala University	A DOZ_Tealli_A
Doncevic Daria University of Heidelberg	A
	В
Jardillier Rémy CEA	B DC2_Team_B
Newar Kapil Universtity of Grenoble Alpes	B BOZ_Team_B
Nyrén Karl Uppsala University	В
Dirian Lara Verteego	С
Marécaille Jules Verteego	C DC2_Team_C
Merlevède Jane Institut Curie	C BOZ_Team_C
Sompairac Nicolas Institut Curie	С
Kondili Maria INSERM , UMRS 938 - Hôpital Saint-Antoine, SIRIC-CURAMUS	D
Novella Rausell Claudio Uppsala University	D DC2_Team_D
Zacharouli Markella-Achilleia Uppsala University	D
Jumentier Basile Université Grenoble Alpes	E
Batista Luciana Innate Pharma	E DC2_Team_E
Jeanmougin Marine Norwegian Radium Hospital	E DOZ_TEATILL
Xie Ting INSERM-CRCT	E
Maié Tiago Institute for Computational Genomics, RWTH University Hospital Aachen, Germany	F
BATTO Anne-Françoise INSERM	F DC2_Team_F
Waury Katharina Uppsala University	F
MEYLAN Maxime UMRS 1138 - Centre de Recherche des Cordeliers	G
Kakoichankava Aliaksandra Vitebsk State Medical University	G DC2 Team G
Scherer Michael Max-planck-Institut für Informatik, Saarbrucken	G DCZ_Tealit_G
LIU JING Institut Curie	G
Alcala Nicolas International Agency for Research on Cancer	Н
DURIF Ghislain CNRS-IMAG	H DC2_Team_H
Jakobi Milan INSERM	H DC2_Team_H
Jedynak Pau UGA	Н