

INHERS SEED

A Wiki-like document of the project

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INHERSEED's wiki

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Name of the owner of the logo

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An explanatory sentence. Leave an empty line for line breaks.

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INHERS SEED

Introduction

Plant microbial INHERitance across generations through SEEDs: impact of this primary inoculum on plant fitness and microbiota assembly

This document acts as a wiki-like platform regarding all protocols and data treatment within the INHERSEED project. The project is lead by Marie Simonin (PI - INSERT WEBSITE), Tristan Lafont Rapnouil is a post-doc in charge of monitoring the project progress and data acquisition and, Mathilde Brunel is a technician involved in greenhouse managing and wetlab experimentations.

While not all data and protocols can be hosted on Github, links to where they are actually findable are persented in this document.

For any questions related to this project, you can contact marie.simonin@inrae.fr and/or tristan.lafontrapnouil@gmail.com.

Data framework

INHERSEED aims to respect the FAIR principles for open science. To do so we share in the present document protocols, raw data, processing scripts/procedures and, processed data as used in resulting articles [1.1](#).

Data			
Acquisition	Raw	Processing	Data for publications
Protocols	phenotype: Pictures, tables	extract data from photos and format tables	RData & .csv
	metabar: sequences	run bioinfo	RData & .csv

Figure 1.1: Shared info regarding acquisition, raw data, processing and published data in the INHERSEED project

To ensure reproducibility data standard processing (bioinformatic pipeline and diagnostics) were embedded in snakemake pipeline. R session info were also stored as text files available [here](#). The Data Management Plan is hosted [here](#).

Deliverable of the project are:

1. Data, protocols and workflows:
 - github hosted document. (Text)
 - Metabarcoding dataset: amplicon sequencing dataset as .fastq for *gyrB* and *ITS1* markers. (Dataset)
 - Seed and plant phenotype as .csv. (Dataset)
 - Processing scripts and pipelines (Python, Bash and R). (Workflow)
 - Protocols for all data acquisition (Text)
2. Results:

- **WP1:**
 - Plant taxonomy and traits influence on seed microbiota
 - Assessment of microbial transmission from plants to seeds
 - Exploring phyllosymbiosis on seed microbiota
- **WP2:**
 - Evaluation of microbial transmission from seeds to seedlings
 - Inherited and non-inherited taxa transmission success
 - Exploring phyllosymbiosis on seedling microbiota
 - Identification of microbial taxa with potential effects on seedling phenotypes
- **WP3:**
 - Experimental validation of vertical transmission of inherited taxa
 - Identification of inherited taxa affecting plant fitness
 - Identification of inherited taxa influencing microbiota assembly

#links to data info

- [Project proposal][document/full_proposal/aapg_20203-INHERSEED_full_proposal.pdf]
- [Original seeds sources][]
 - [species list][]
 - [suppliers][]
- [Seed phenotype][]
 - [Seed pictures][]
 - [TRAITOR software][]
- [DNA extractions][]
 - [Seeds][]
 - [Leaves][]
 - [Roots][]
 - [Soil][]
- [Plant phenotype][]
- [R script to download all datasets][]

#References

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Abstract

Keywords Keyword in English, As a list.