Investing in

Host Plant Resistance

and Sustainable Pest Management

From Resilient Crops to Smart Technologies

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FAO–EBRD ACES E-Dialogue · 30 April 2026

THE SCALE OF THE PROBLEM

INTERNATIONAL YEAR OF
PLANT HEALTH
2020

~25%

yield loss

>1.5B

people

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For a century our answer was chemistry.
Today, biology can finally move at the speed of pathogen evolution.

A NEW SPEED REGIME

Three pillars, one inflection point.

01

GENOMIC SURVEILLANCE

Know the enemy.

Reading pathogens and crops in the field, where they live.

02

AI ACCELERATION

Predict, don't guess.

AlphaFold and machine learning can compress years of breeding into weeks.

03

PRECISION BREEDING

Lab to market.

Gene editing has crossed the regulatory threshold. Capital is following.

Genomics, where the pathogens live.

Get Genome
GENOMICS FOR ALL

GetGenome

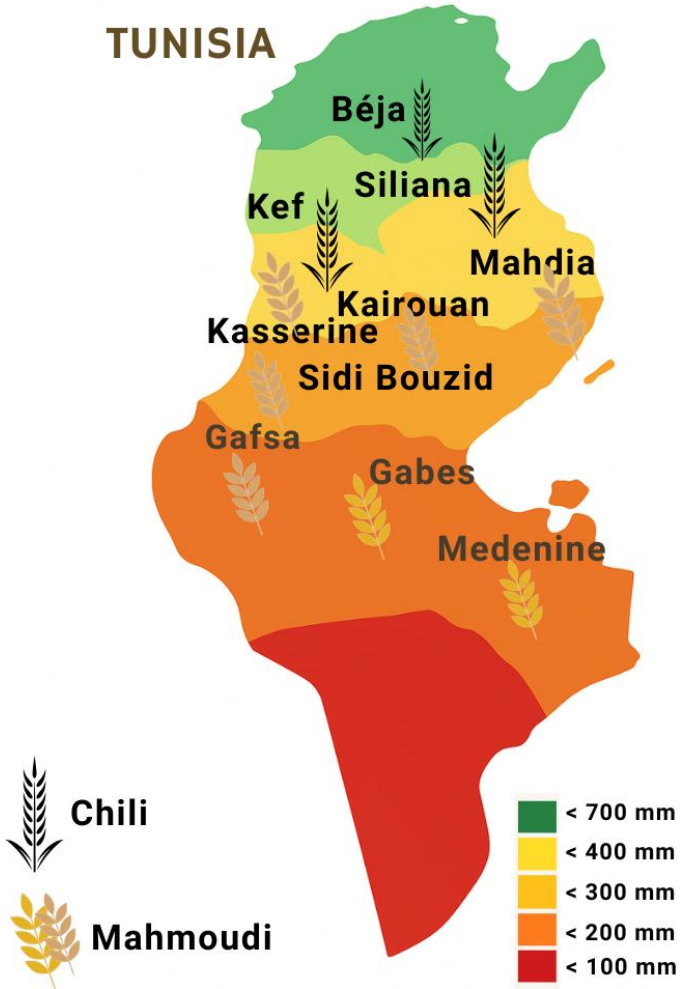
genomics for all

150+ scientists

100+ institutes

20+ countries

UK-registered charity, founded at TSL.



Get Genome
GENOMICS FOR ALL

Genome Announcement
Chili & Mahmoudi

From Local Heritage to Genomic Innovation:
Whole-Genome Sequencing of Tunisian Durum Wheat Landraces

Genomic Resources

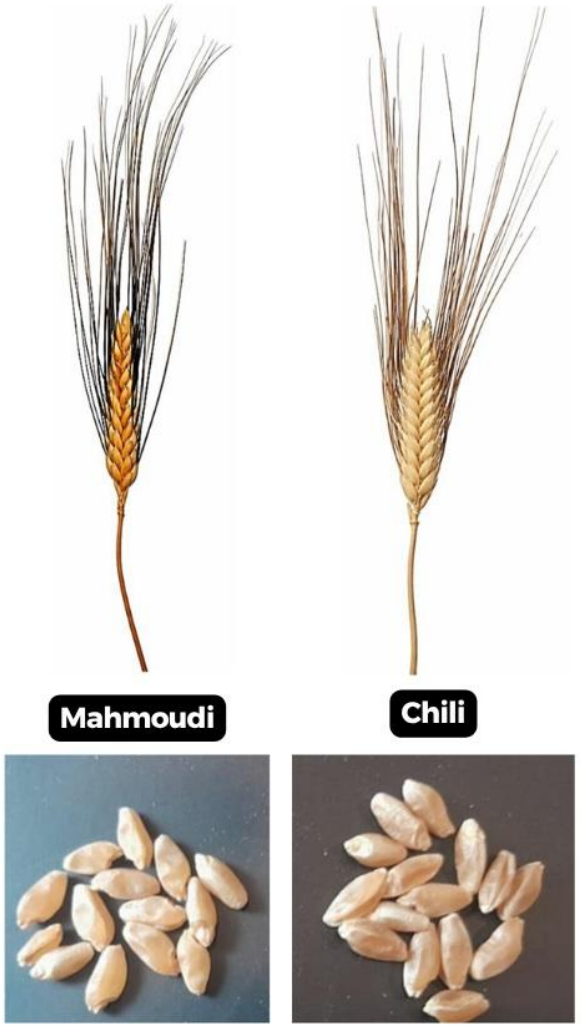
High-quality reference genomes for Chili & Mahmoudi

Stress Adaptation

Insights into genes for drought & environmental tolerance

Breeding Applications

Supporting climate-resistant & sustainable wheat improvement



Drought Tolerance

Genetic Diversity

Breeding Impact

Available on zenodo

https://dci.org/10.5281/zenodo.19499032

Advancing the genomics of local germplasm for a resilient wheat future

02 AI ACCELERATION — PREDICT, DON'T GUESS

Bifrost.

Plant immunity, predicted from sequence.

$2M

Google.org AI for Science Fund

1 of 12 awardees worldwide · January 2026

Powered by DeepMind AlphaFold-3

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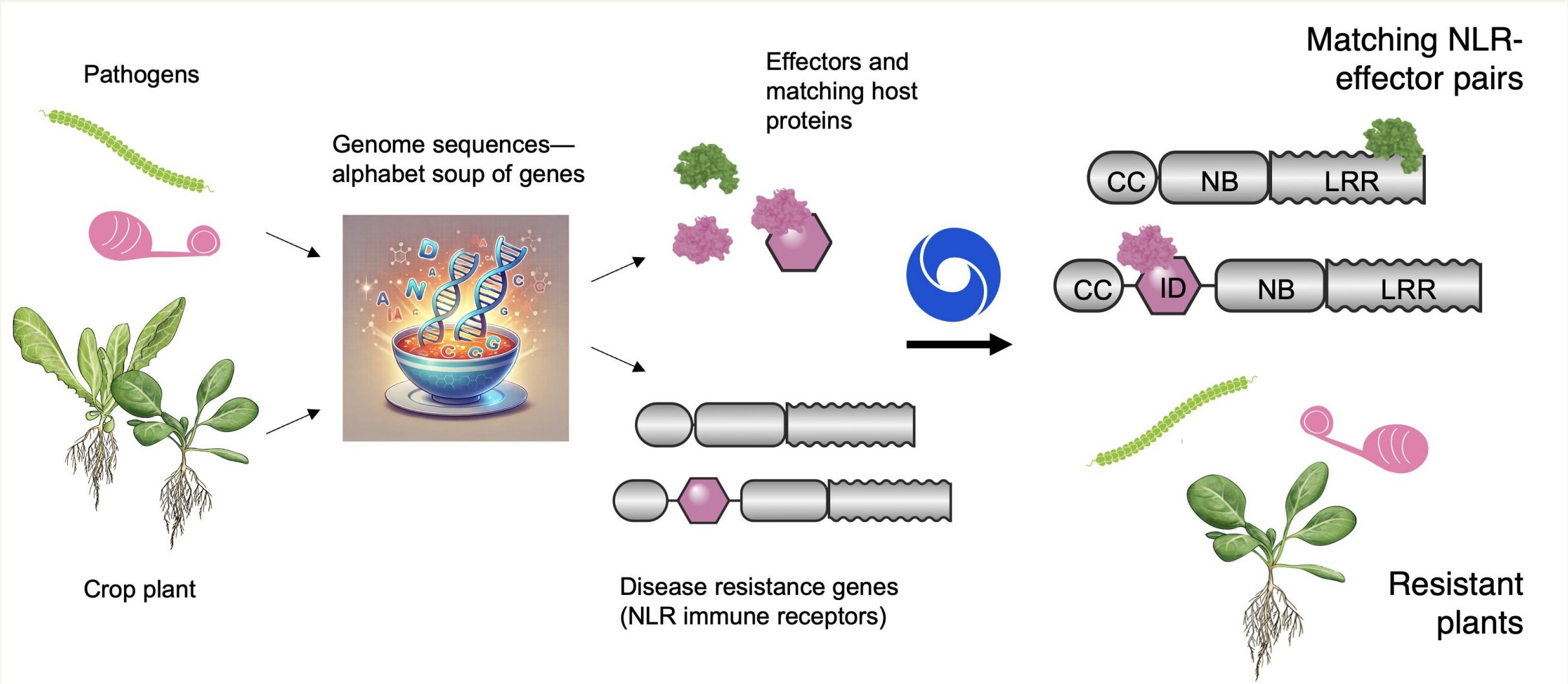

From regulatory anomaly to mainstream?

Tomelo

a powdery-mildew fungus-resistant tomato

48-bp deletion in Mlo1

Indistinguishable from a natural mutation.

Zero foreign DNA.

Made at TSL. A decade ago, unusable in Europe. Today, the proof of concept that helped anchor a regulatory shift.

THE REGULATORY RUNWAY

2022 UK Genetic Technology (Precision Breeding) Act passed.

2025 UK secondary legislation operational — first NGT crops to market.

2026 EU Council adopts New Genomic Technologies (NGT) Regulation: Category-1 plants treated as conventional.

Tomelo

From regulatory anomaly to mainstream?

GE is no longer a research curiosity.

It is an asset class.

Waking the immune genes that breeding silenced.

$8.1M Series A · led by Corteva · March 2026

FloraFold AI platform · TSL spinout · founded by Duggan, Bozkurt, Kamoun

Soy | **Corn** | **Wheat** | **Potato** | **Tomato** | **Spinach**

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WHAT'S CHANGED

- Regulatory paths in EU, UK, US converging on edited = conventional.
- Major ag-bio incumbents now licensing trait IP from start-ups.
- Public-good pipelines (Tomelo) and private trait companies (Resurrect) co-existing.

WHAT WE NEED FROM FAO & EBRD

The decisive decade.

Three pieces of investable infrastructure.

01

Public-good genomics for the Global South

Built the way we built public-good vaccines.

02

Shared AI compute for plant science

Built the way we built CERN.

03

Patient capital for trait companies

Built the way we built clean energy.

Plants have an immune system.

Our job, in this decade, is to wake it up —

at the scale of a planet, on the timeline of a climate.

Thank you.

Sophien Kamoun · The Sainsbury Laboratory · GetGenome · @KamounLab