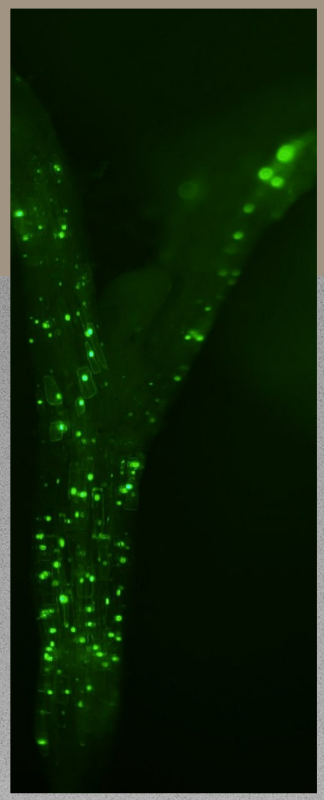
2023

IGCAST SCIENTIFIC IMAGES COMPETITION



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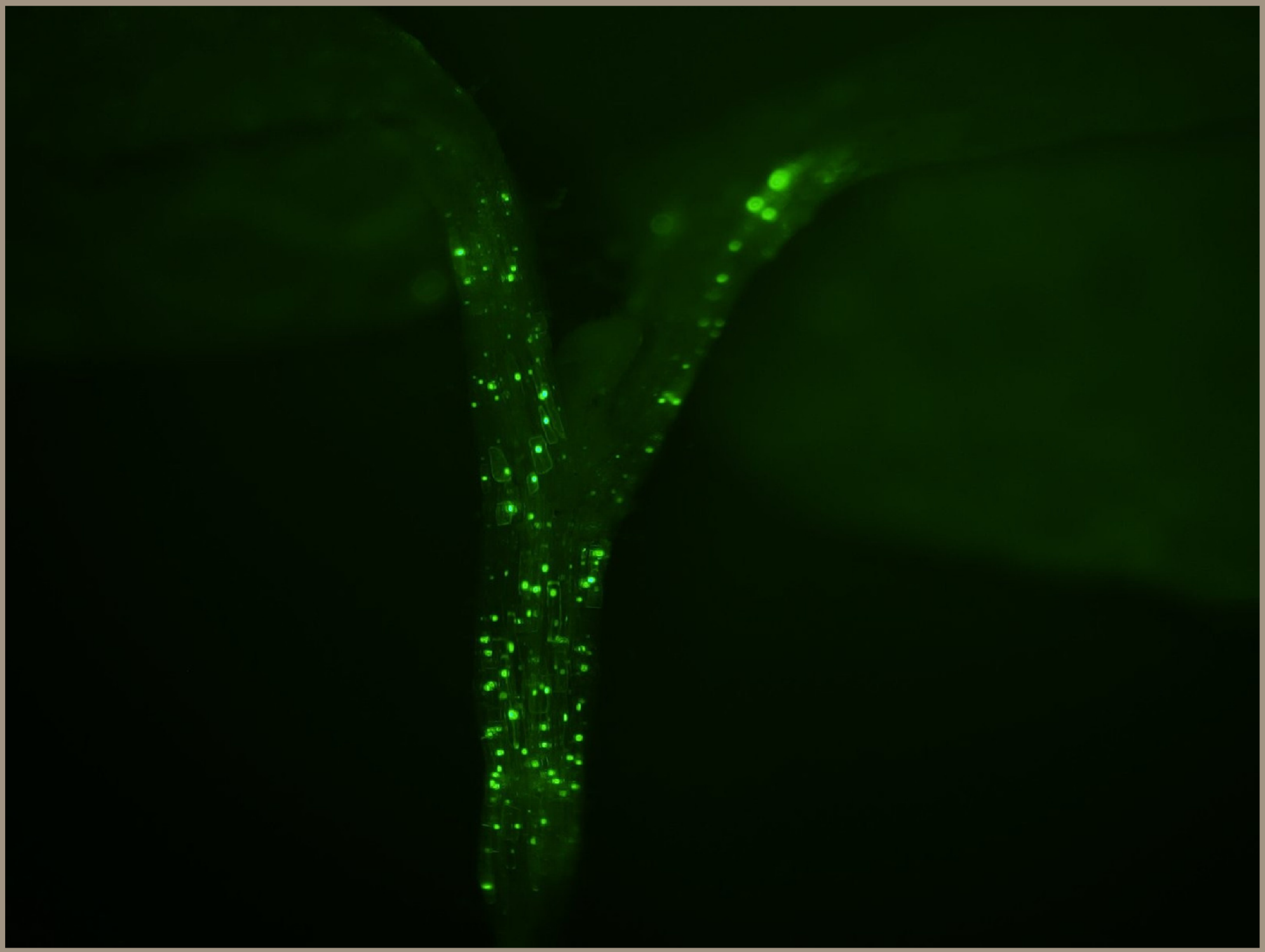
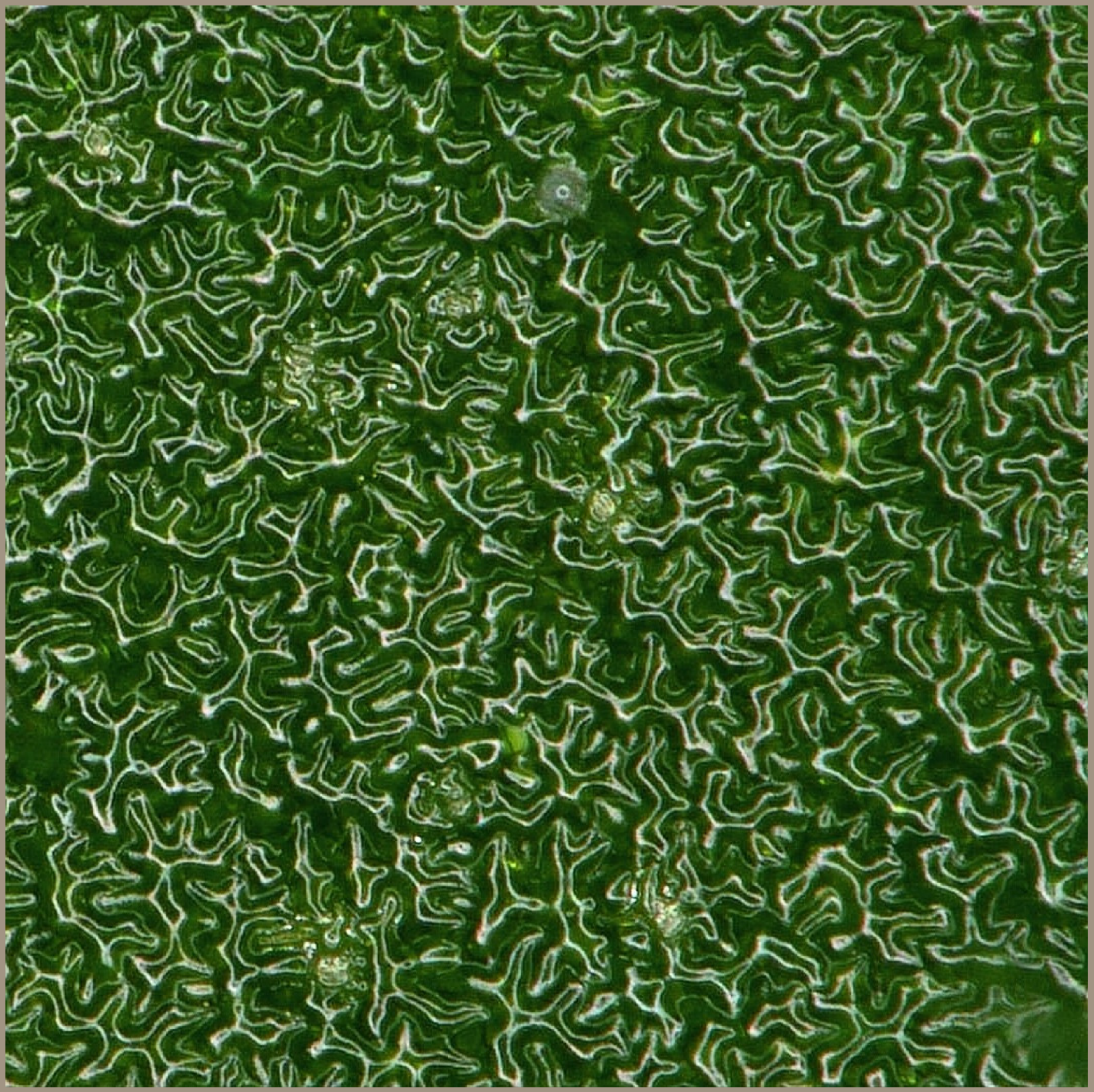
Institute *of* Genomics *for*
Crop Abiotic Stress Tolerance



Benjamin Perez

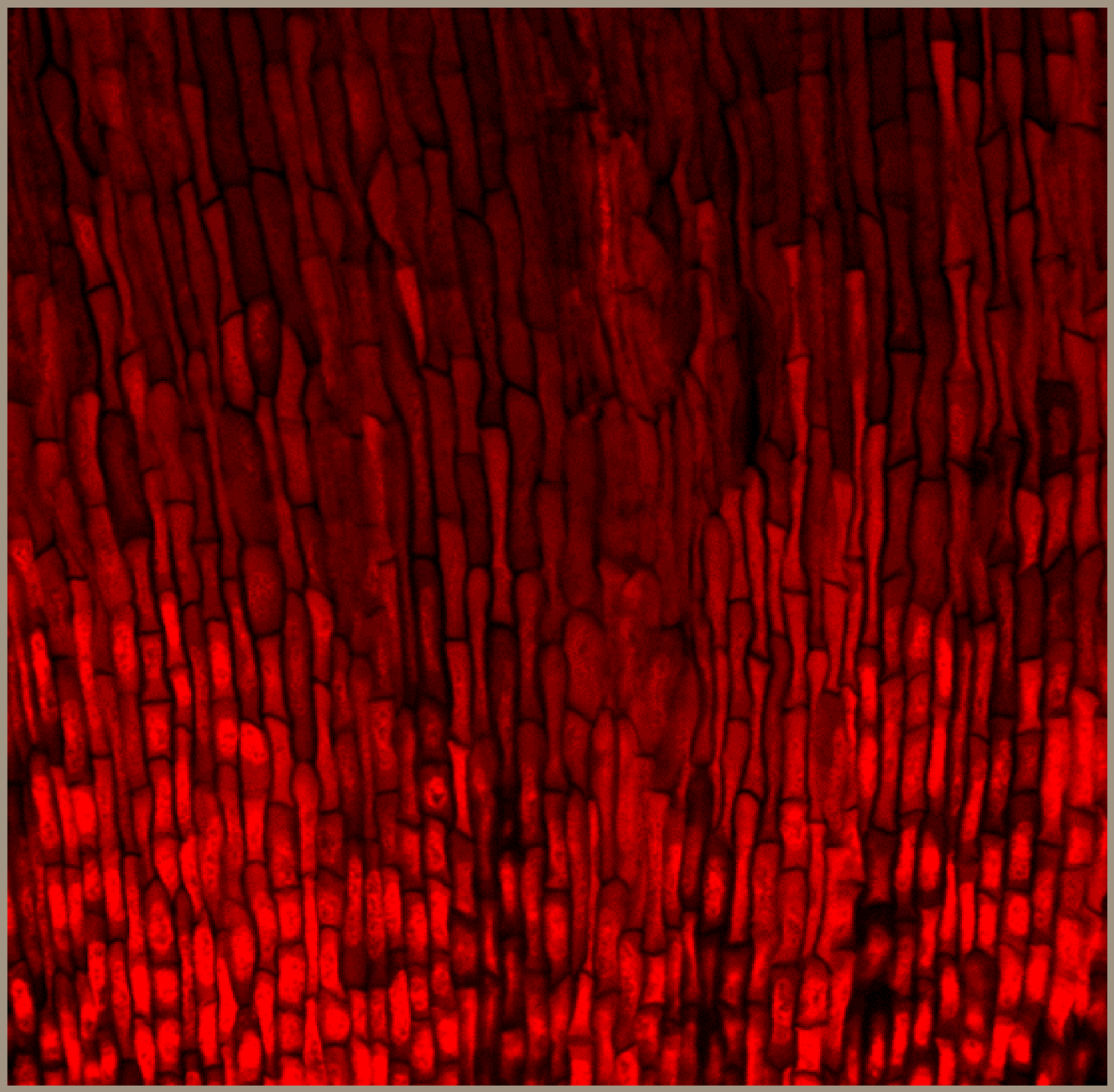
I am Groot
N. benthamiana hypocotyl under a fluorescent filter expressing a nuclear-localized mEGFP. The seedling was vacuum infiltrated with A. tumefaciens carrying a vector with the transgene.

First
PRIZE



Héctor Rogelio Nájera
Tobacco leaf surface.

Second
PRIZE

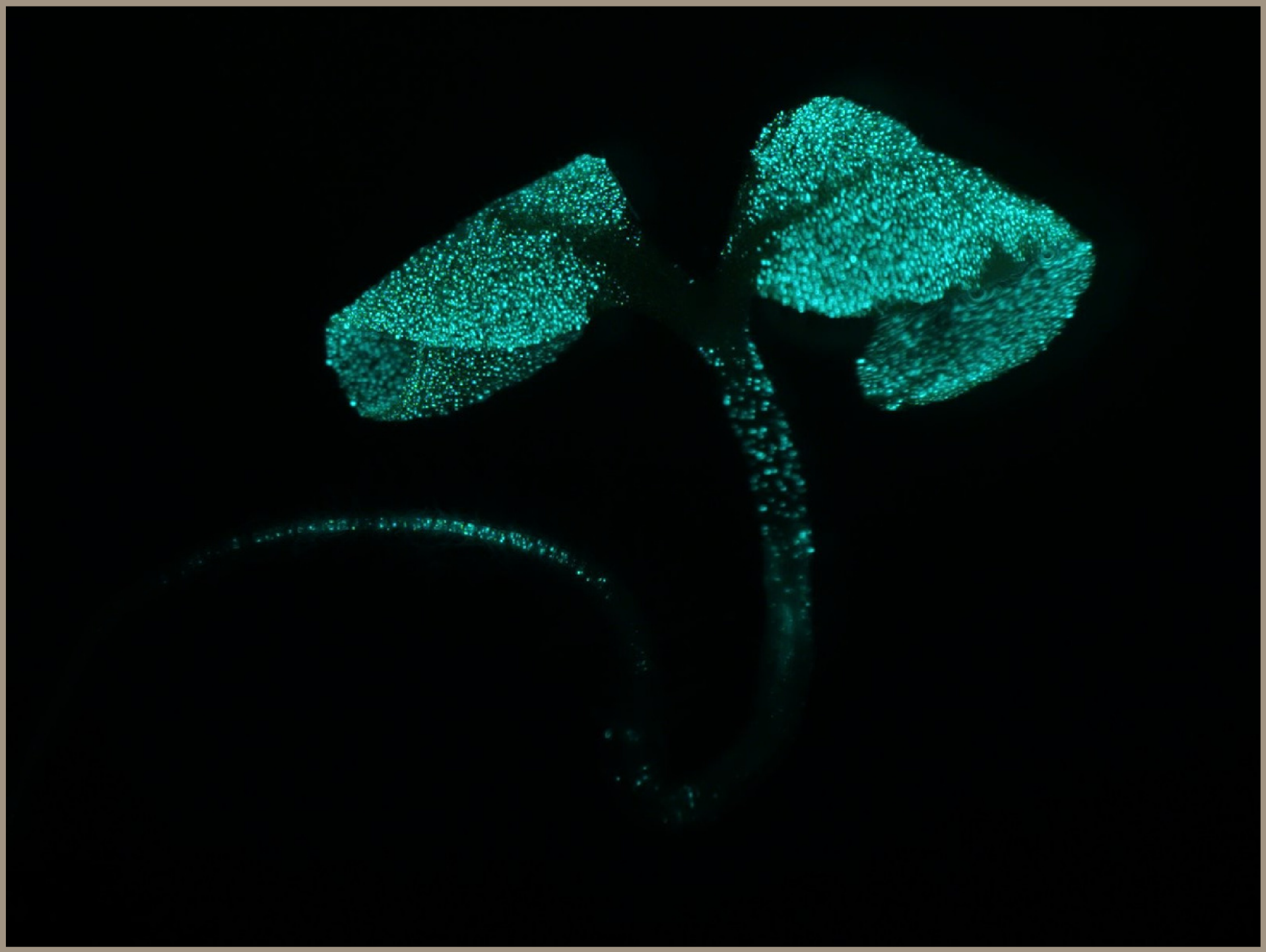


Carlos Barragan Rosillo
Cell wall
Sorghum root cells.

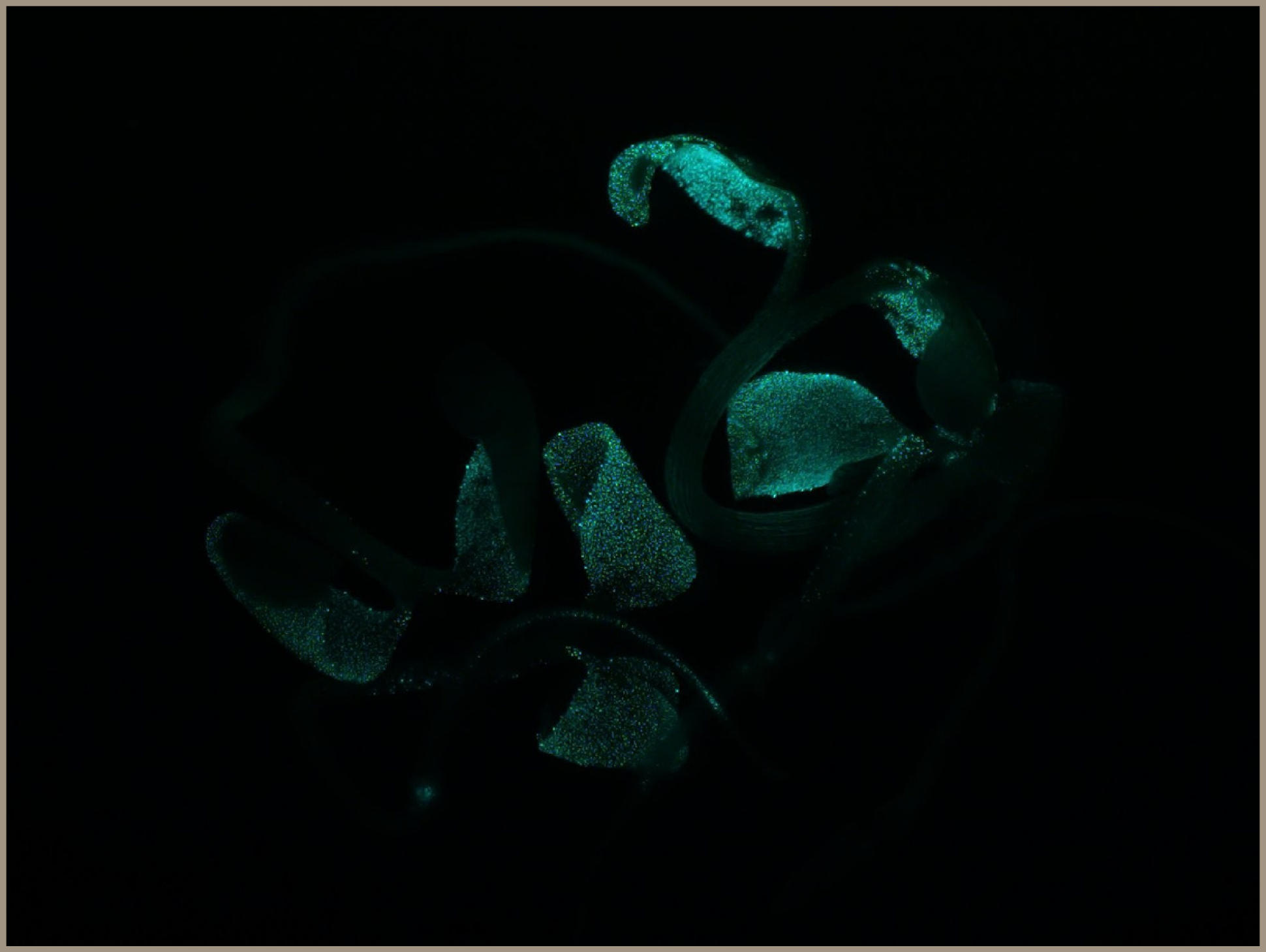
Third
PRIZE

Adil Khan
Overview of the time series sorghum seed. The photographs show the changes in maize embryo, endosperm, and whole seed during development.

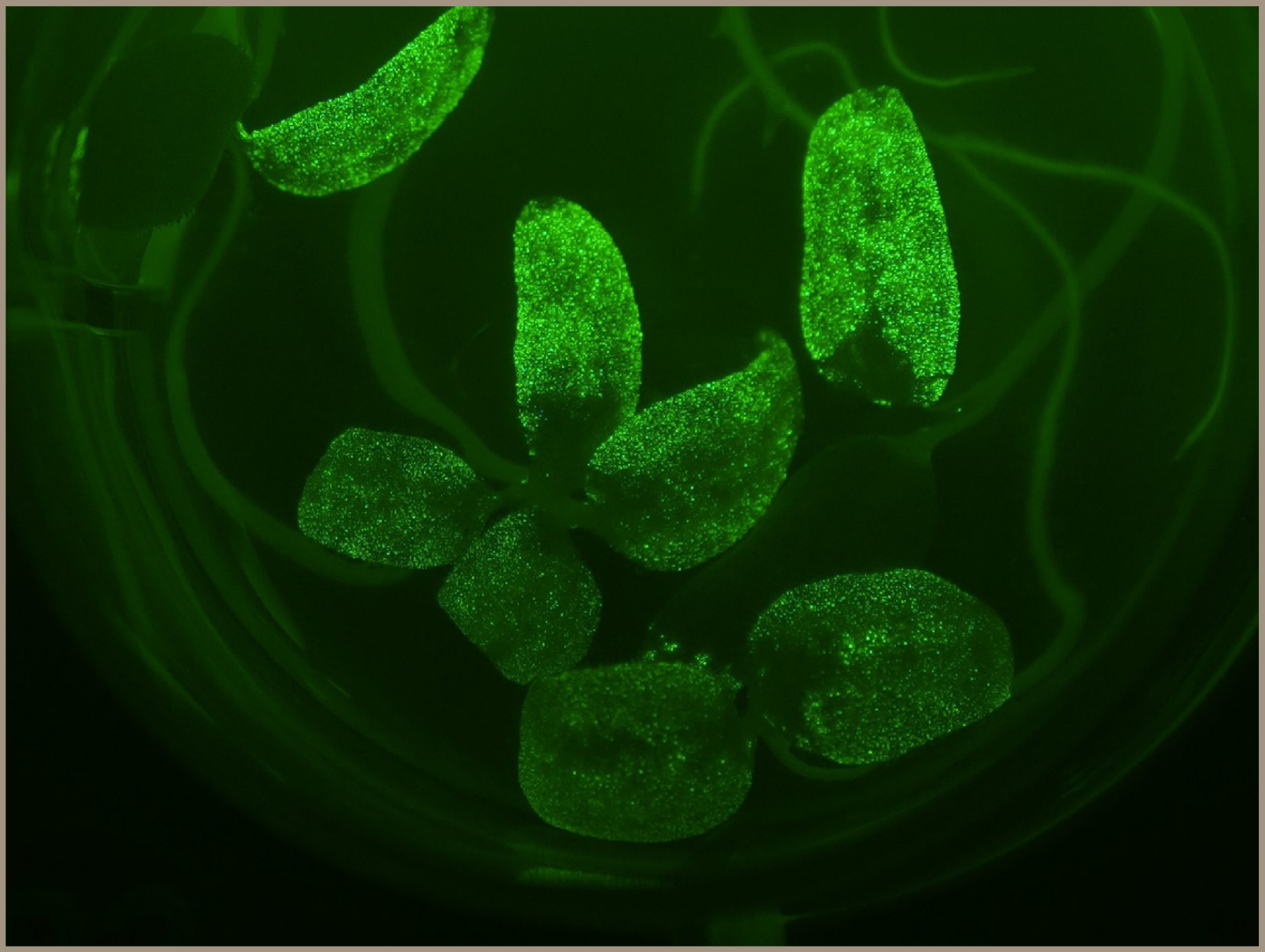
Arjun Ojha
Shoot at site. A rare view of three genotypes in one plant Tissue-culture-free genetic transformation and gene-editing in tobacco.



Benjamin Perez
Beauty under the blue
N. benthamiana seedling under a fluorescent filter expressing a nuclear-localized mEGFP. The seedling was vacuum infiltrated with A. tumefaciens carrying a vector with the transgene.

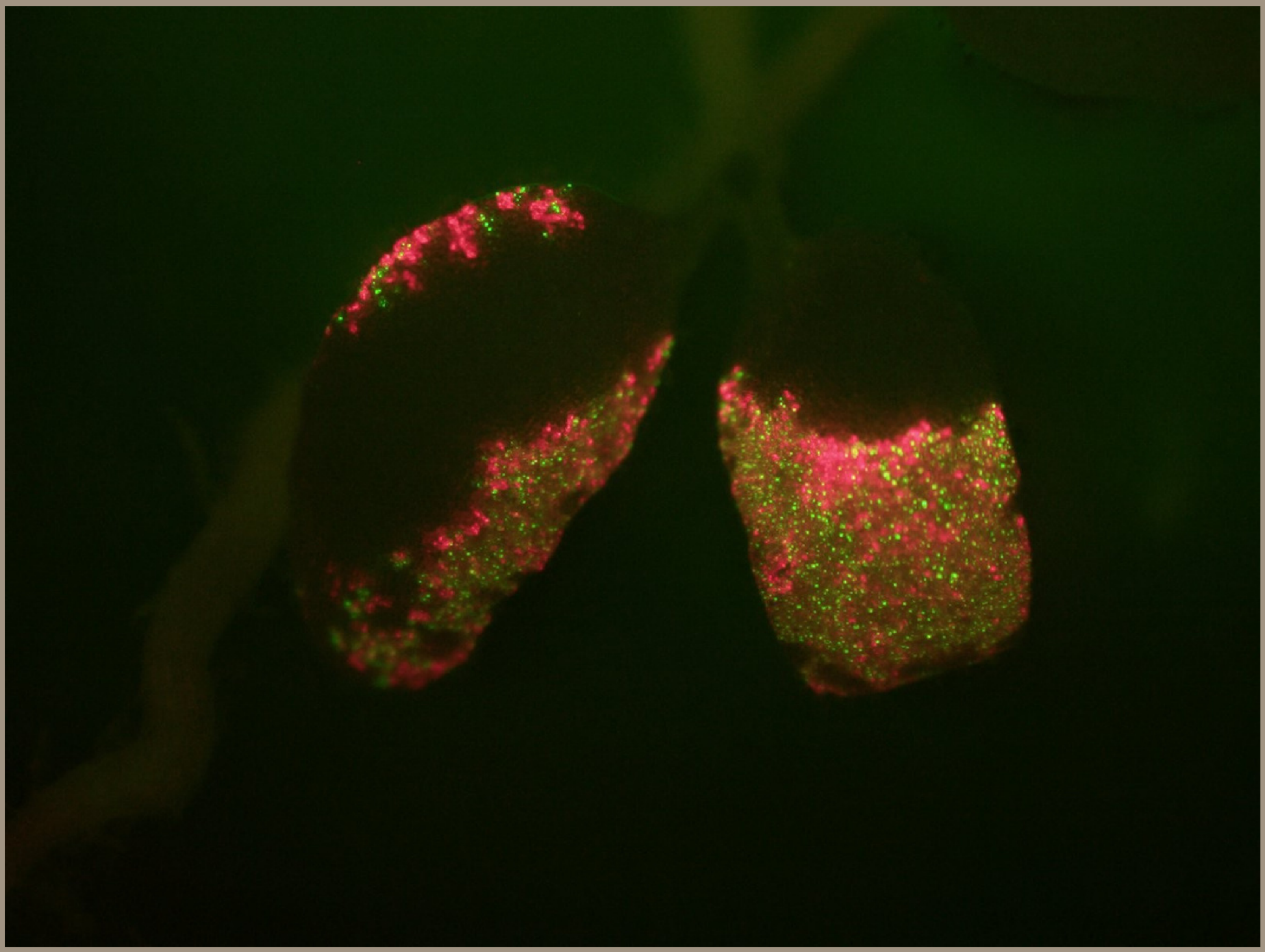


Benjamin Perez
Fluorescent dance
A pool of N. benthamiana seedlings under a fluorescent filter expressing a nuclear-localized mEGFP. The seedlings were vacuum infiltrated with A. tumefaciens carrying a vector with the transgene.

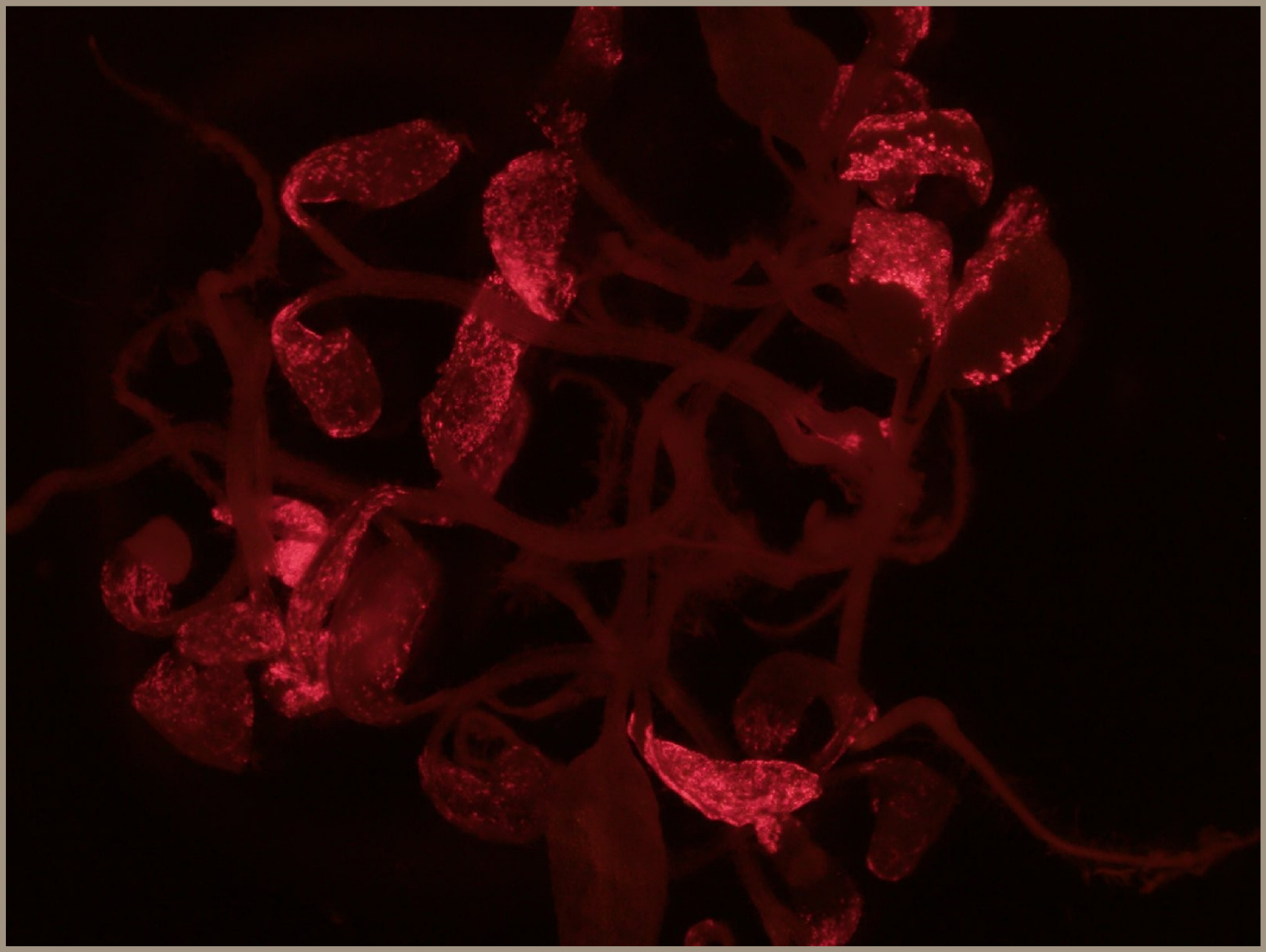


Benjamin Perez
Saint Patrick's Day
N. benthamiana seedling under a fluorescent filter expressing a nuclear-localized mEGFP. The seedlings were vacuum infiltrated with A. tumefaciens carrying a vector with the transgene.

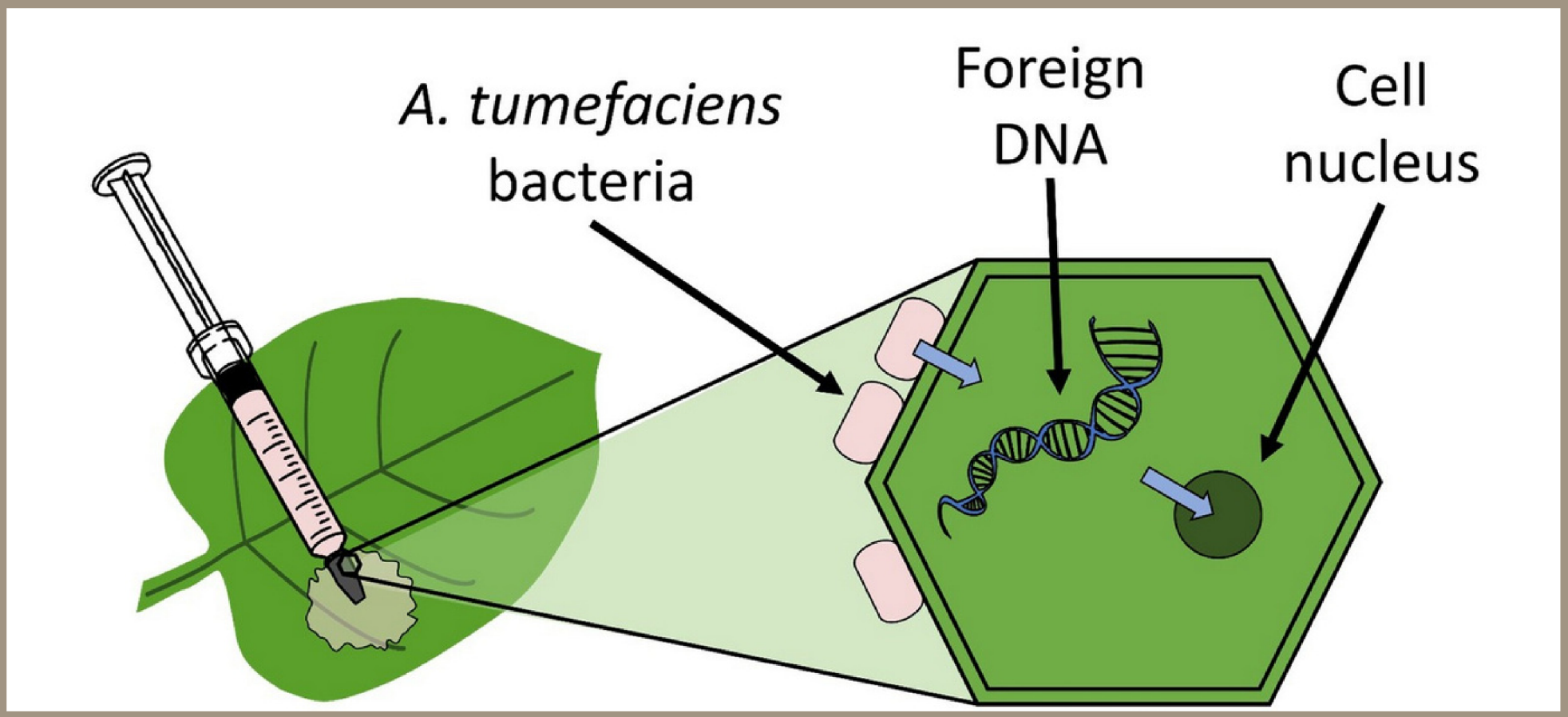
Benjamin Perez
Stay shiny
A pool of one-week-old N. benthamiana seedlings observed under the microspore.



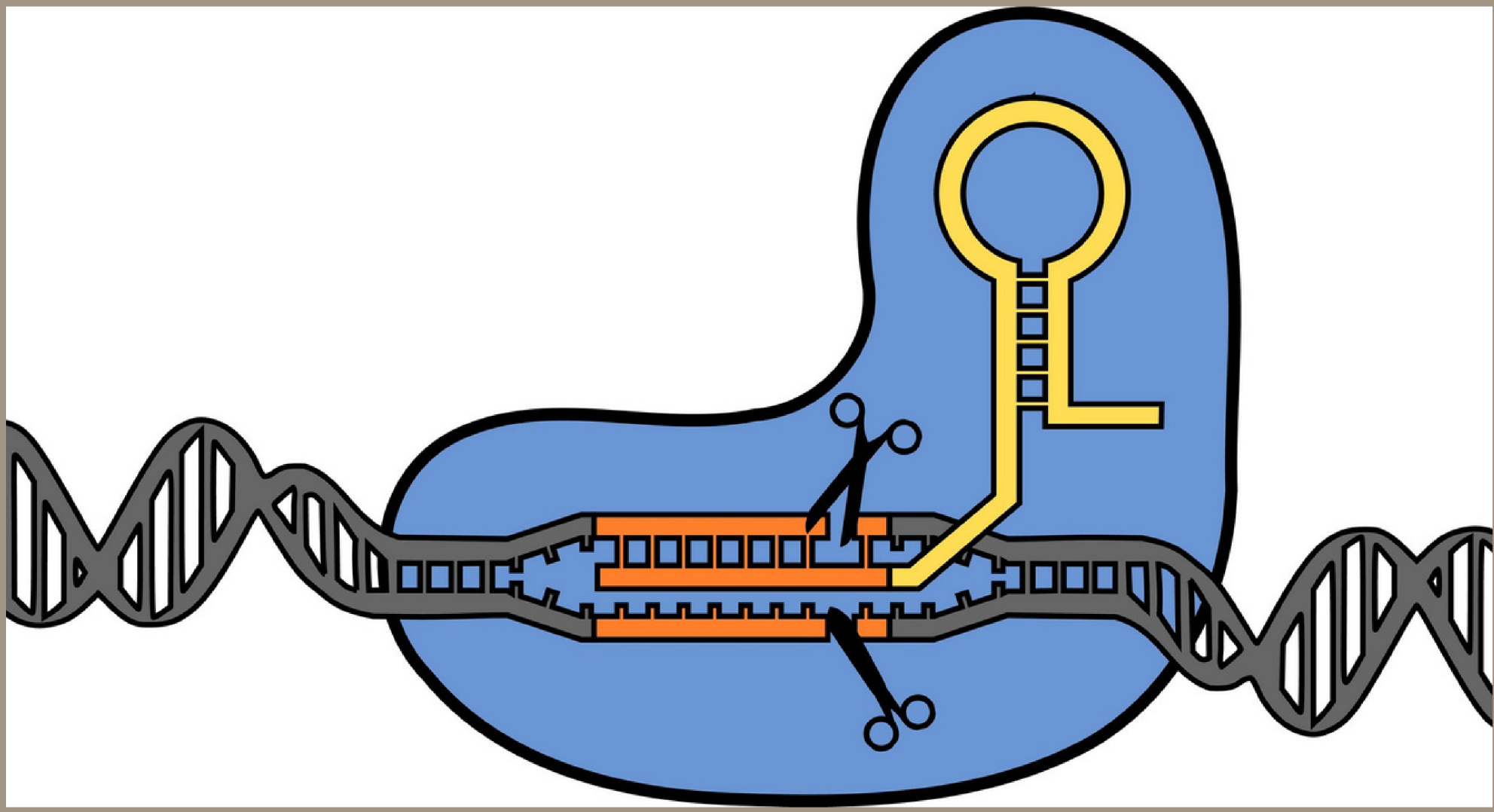
Benjamin Perez
Christmas in the lab
N. benthamiana cotyledons under two different fluorescent filters expressing mEGFP and mCherry transgenes.



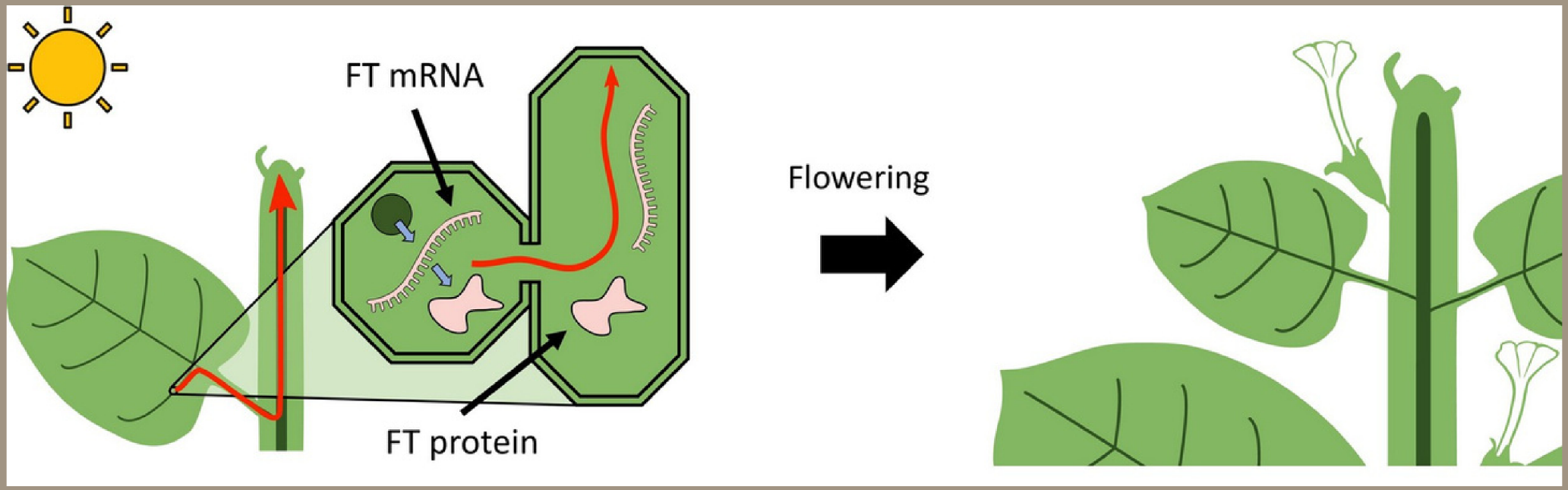
Benjamin Perez
Set me on fire
A pool of N. benthamiana seedlings under a fluorescent filter expressing a mCherry. The seedlings were vacuum infiltrated with A. tumefaciens carrying a vector with the transgene.



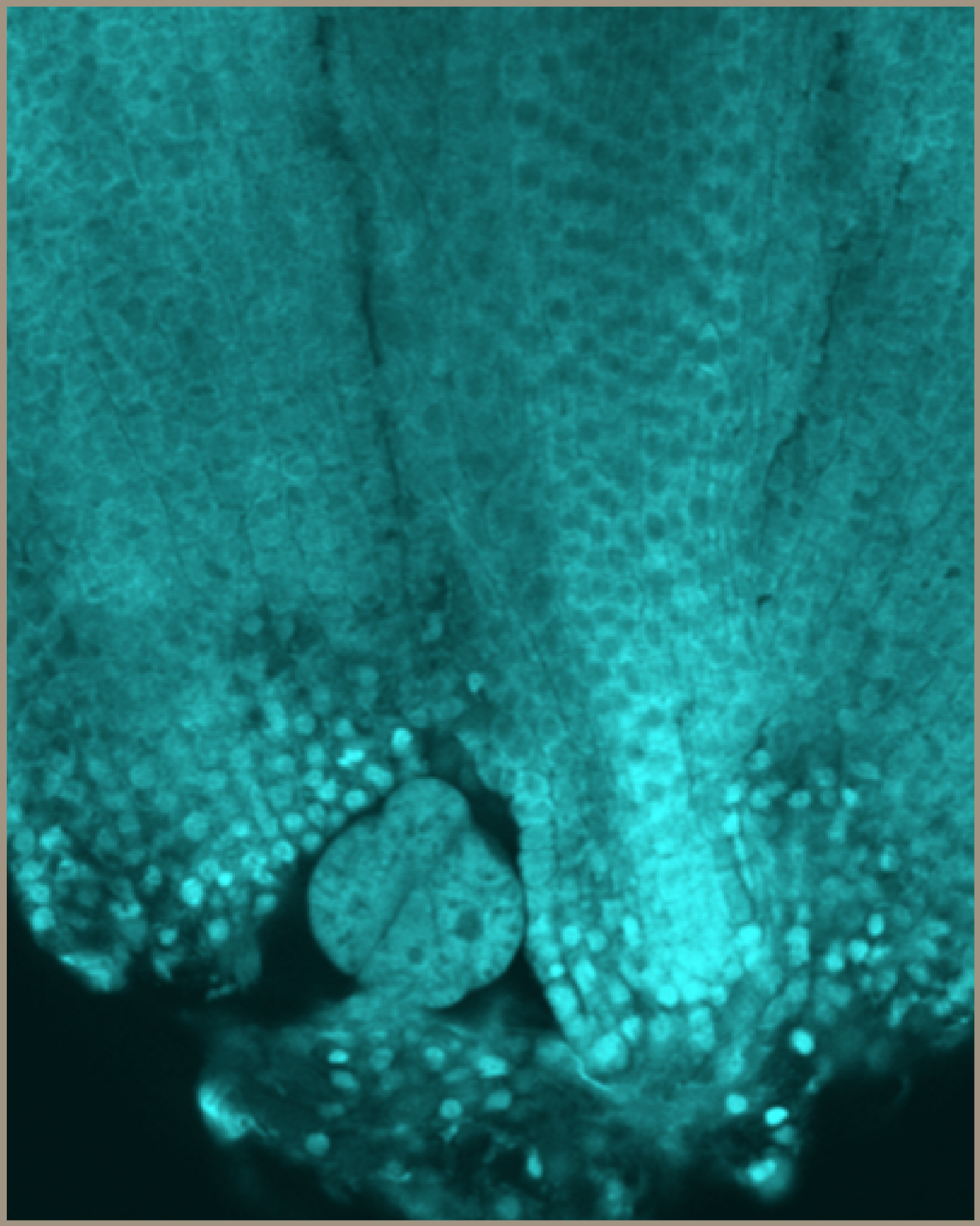
Benjamin Perez
The genetic engineer
Agrobacterium tumefaciens incorporating its DNA into a plant cell.



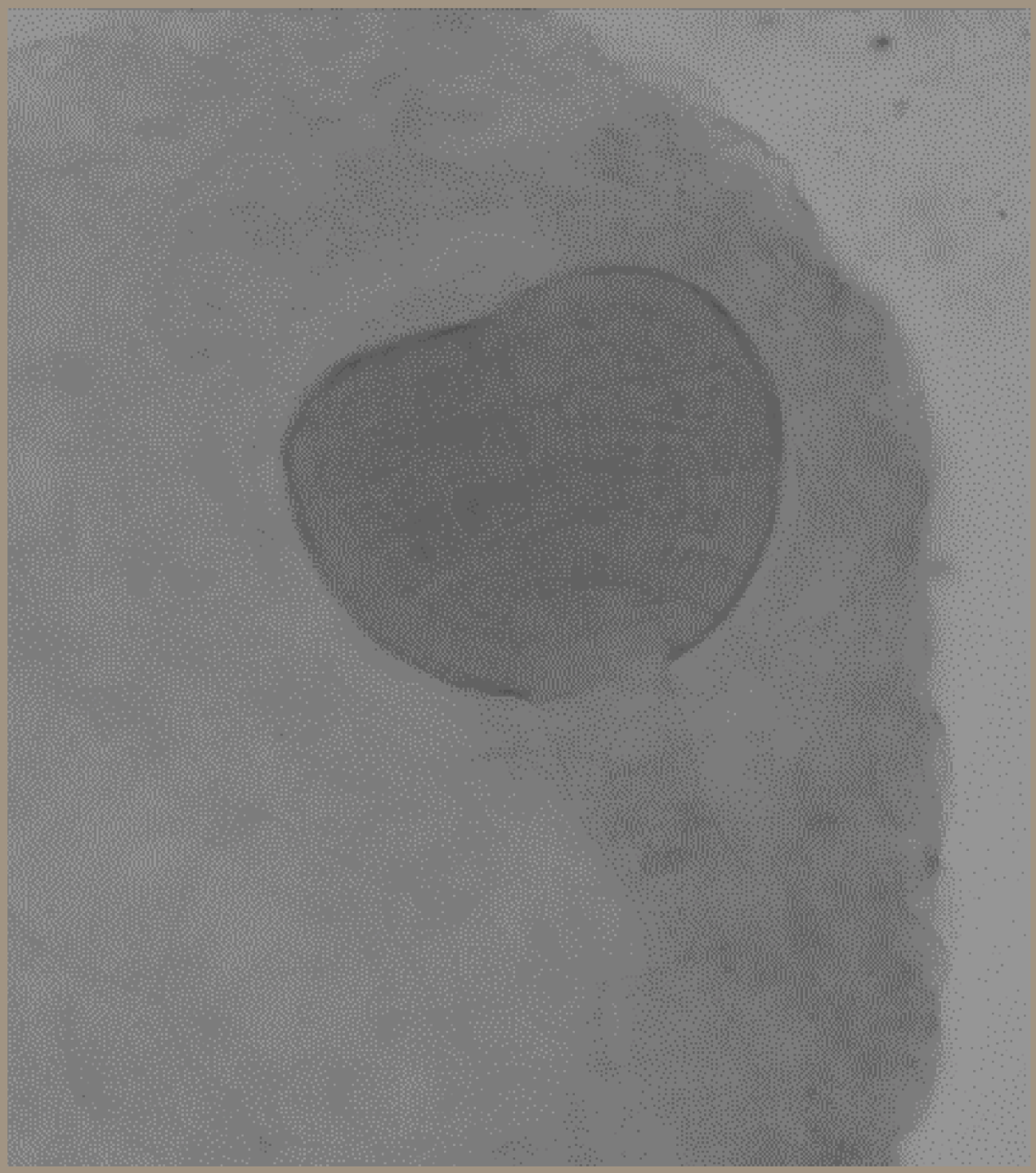
Benjamin Perez
Right on the money
The CRISPR/Cas9 programable nuclease cleaving a targeted DNA location.



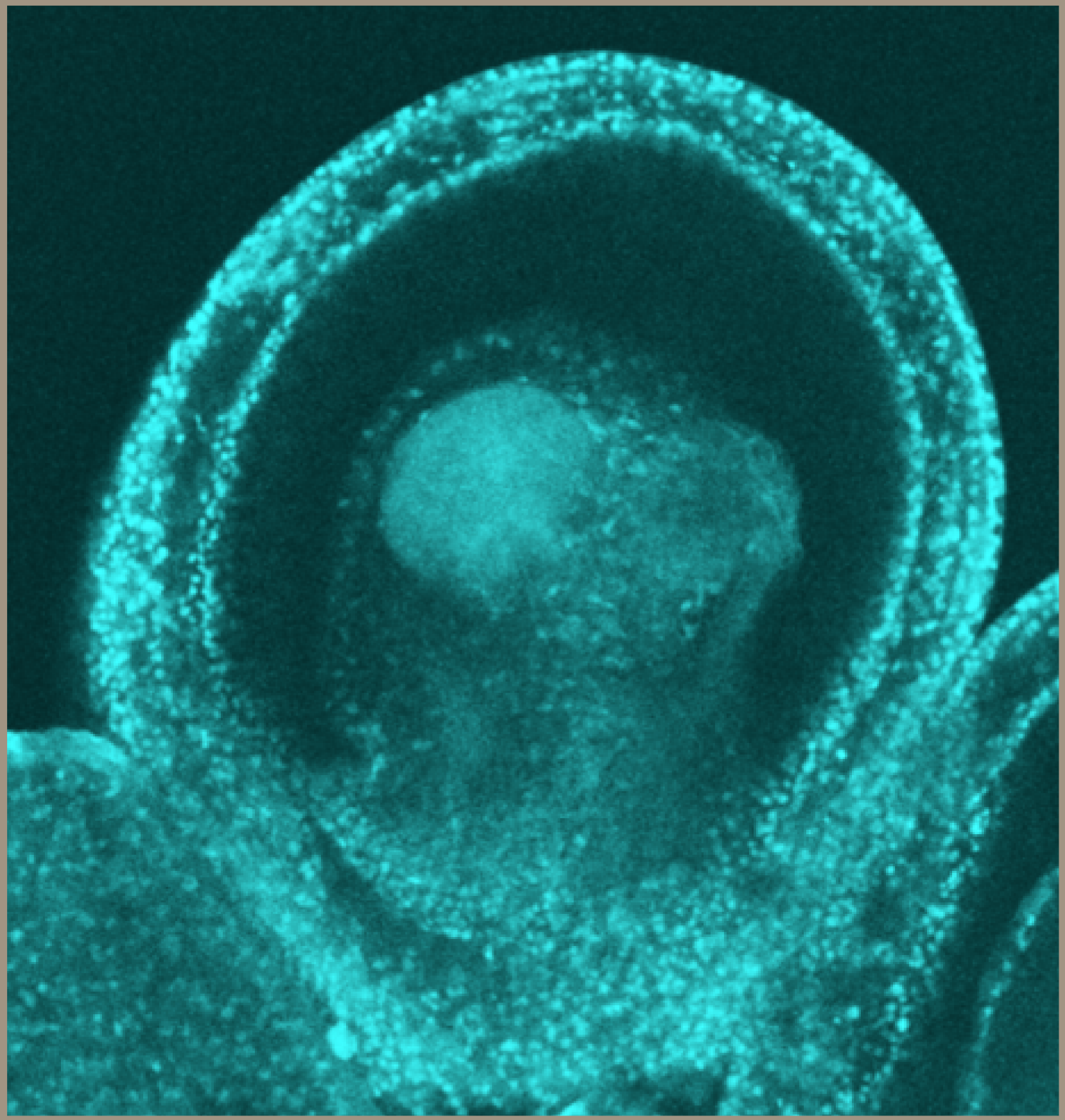
Benjamin Perez
FT, the romantic messenger
After FT expression in the plant's leaves, the messenger RNA travels into the apex to signal the generation of flowers.



Carlos Barragan Rosillo
Beginning of the embryo sac development.

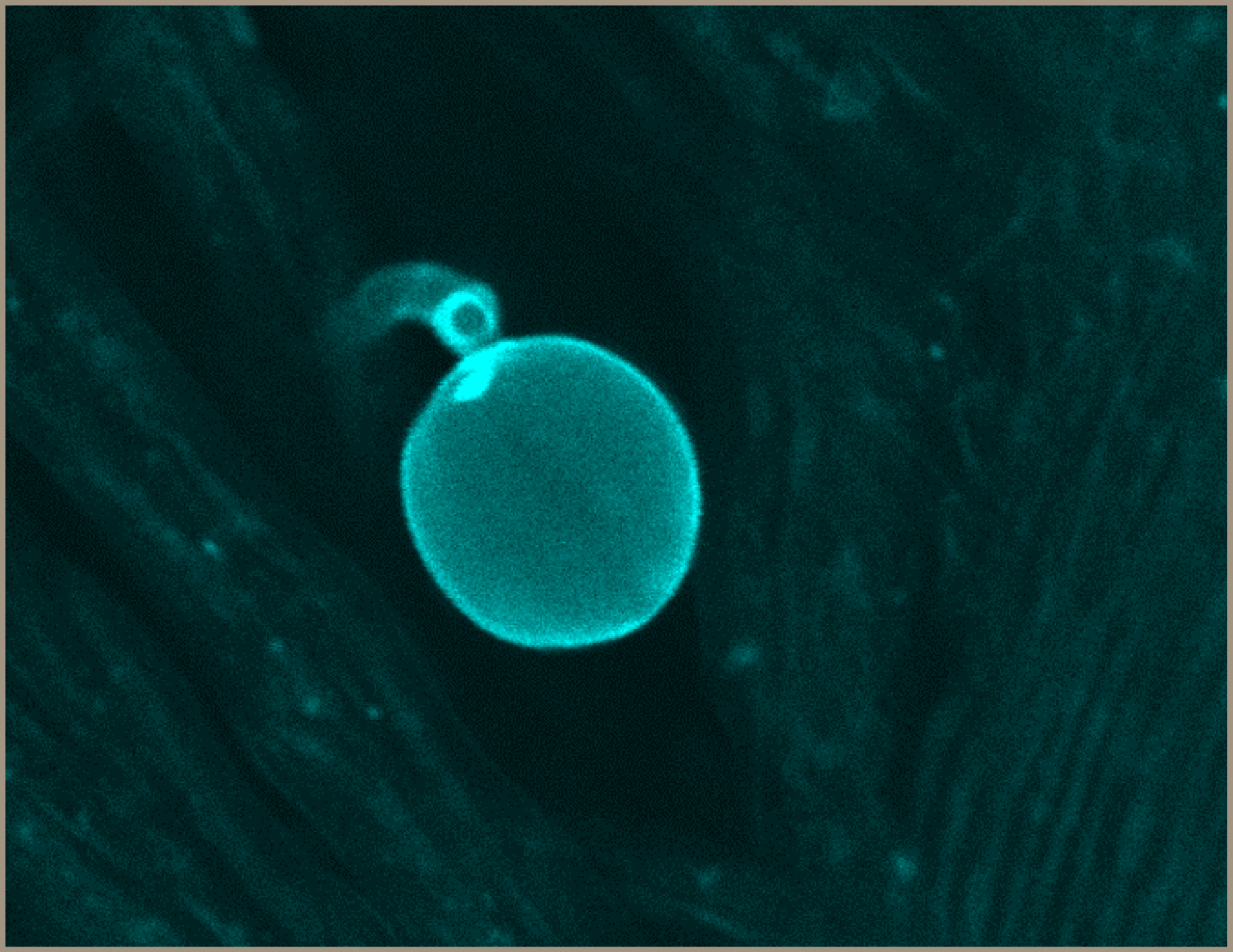


Carlos Barragan Rosillo
Chia heart embryo.

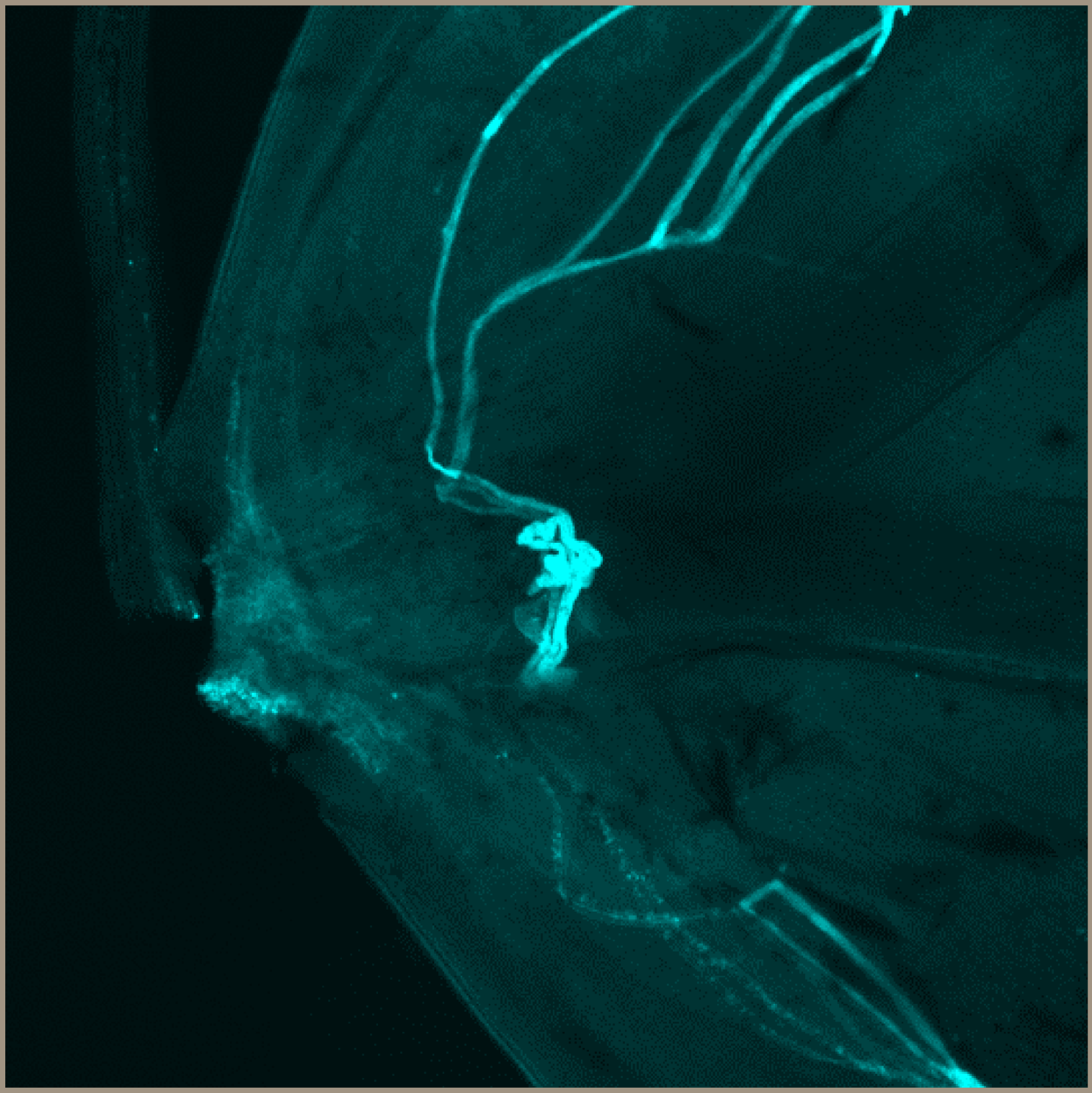


Carlos Barragan Rosillo
Preparing for the Inheritance
Chía ovule.

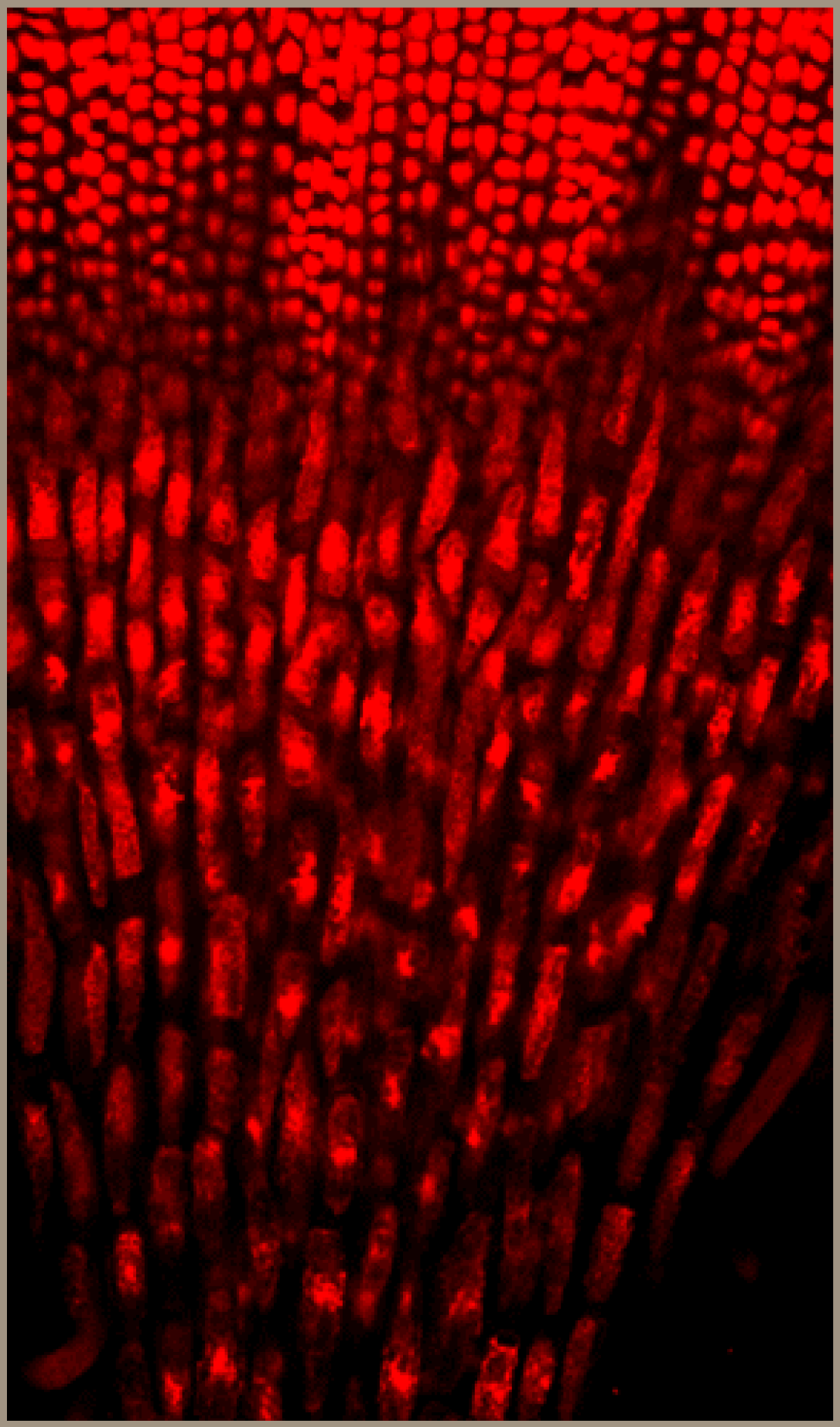
Carlos Barragan Rosillo
The beginning of the race
Pollen grain.



Carlos Barragan Rosillo
The beginning of the race
Pollen grain.



Carlos Barragan Rosillo
Competition for the glory
Pollinic tubes.

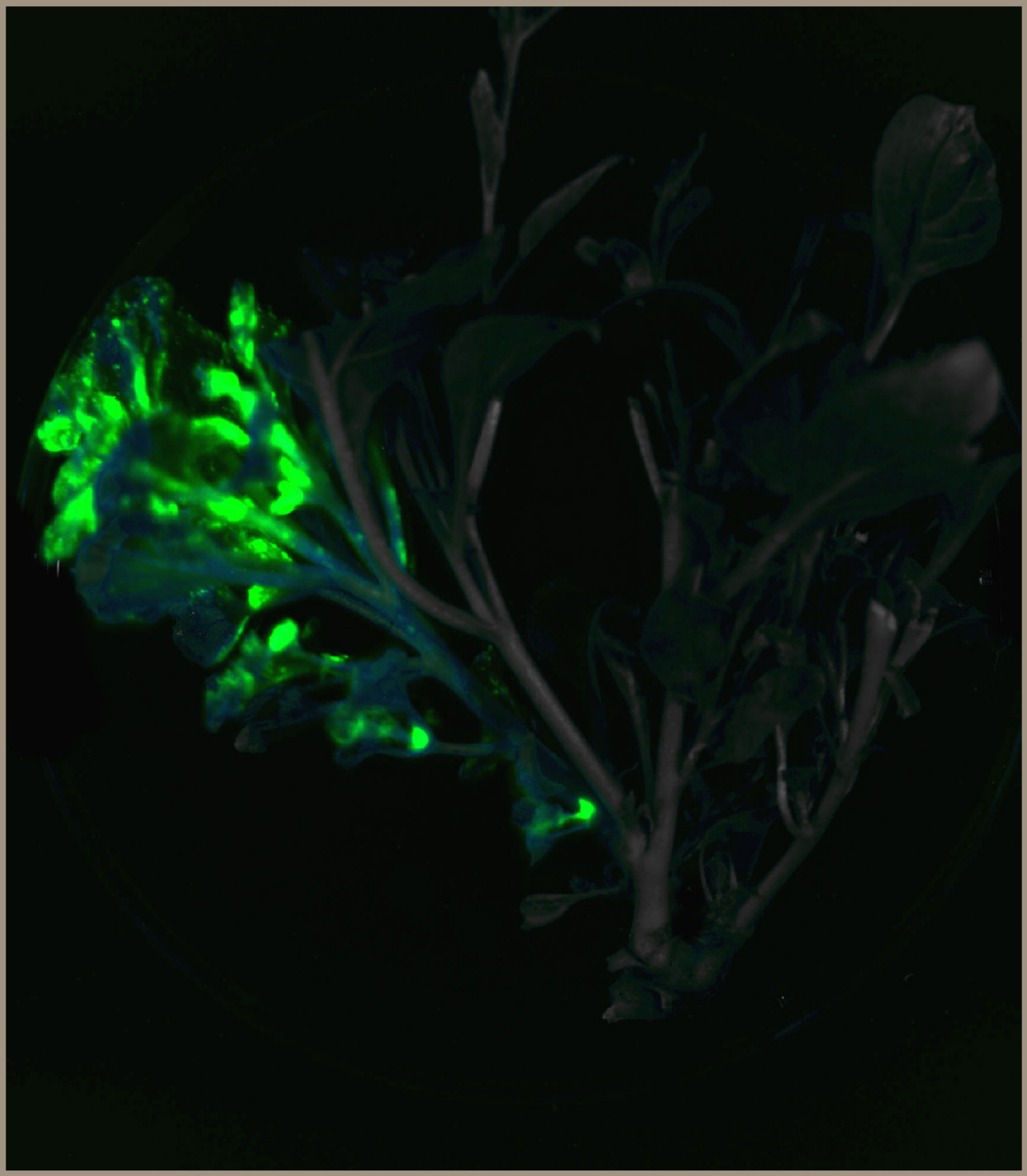


Carlos Barragan Rosillo
Chromatin shapes
Root tip.

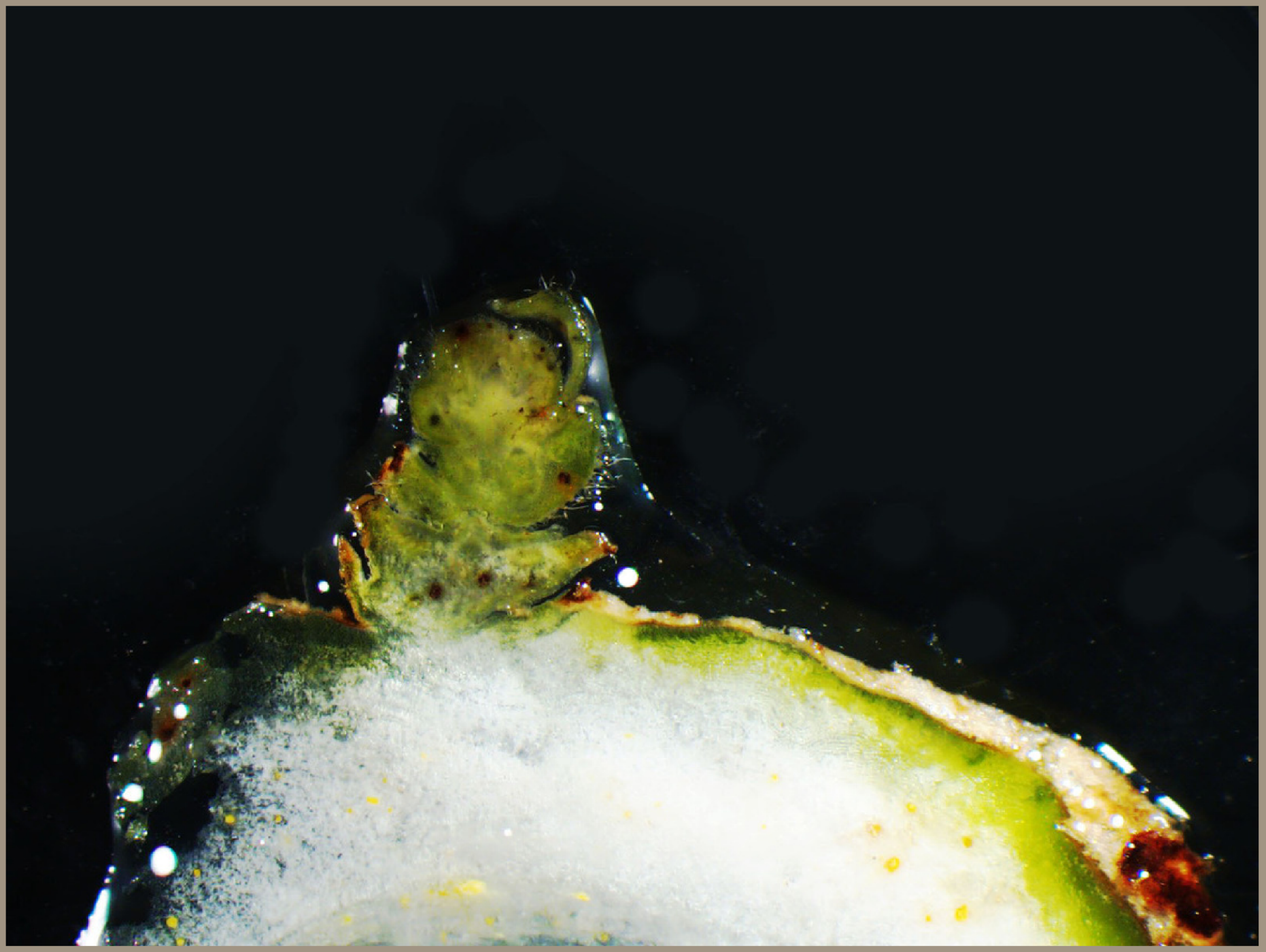
Carlos Barragan Rosillo
Attached pollen grain.

Carlos Barragan Rosillo
The embryo sac of Chia in a separated chamber.

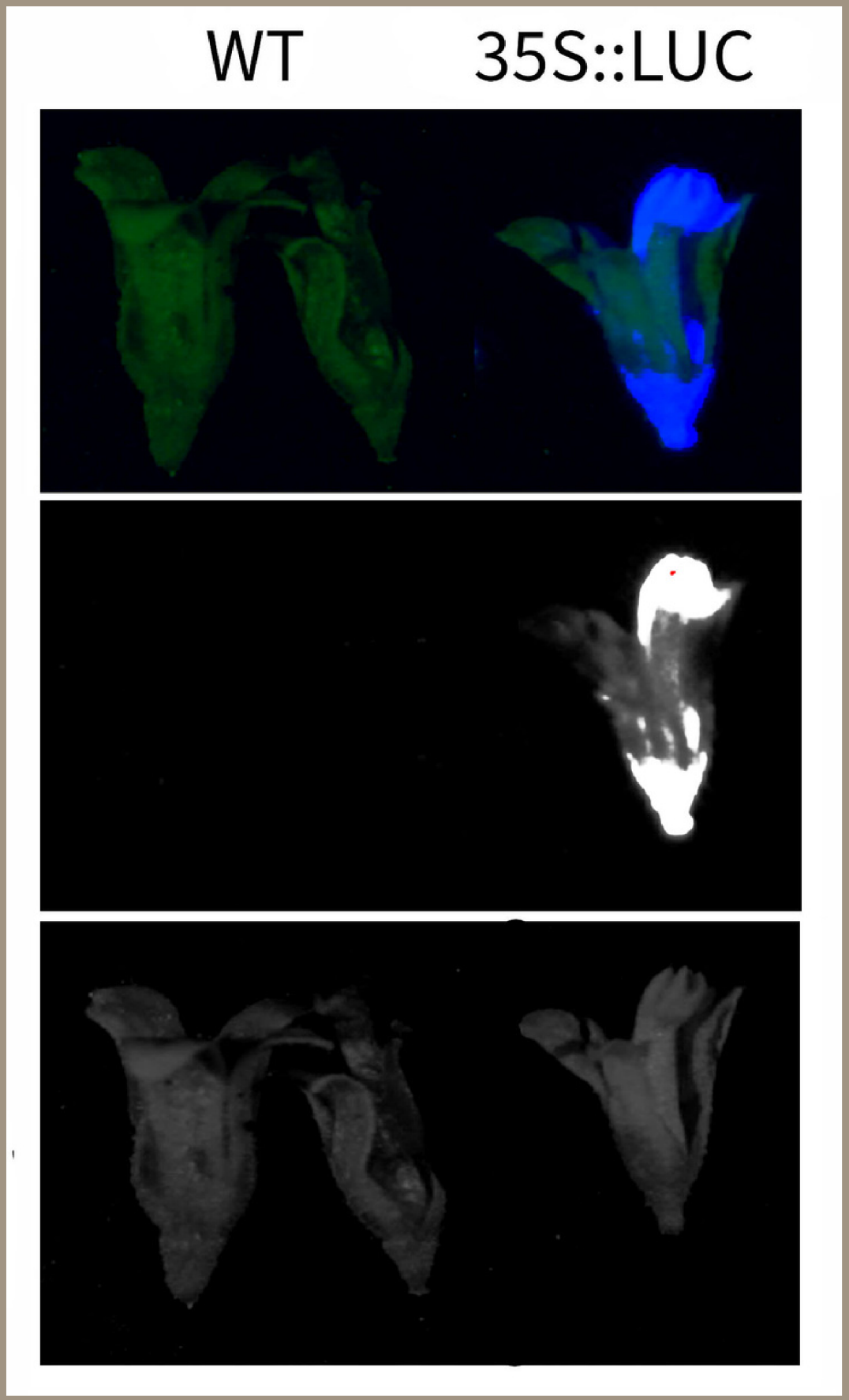
Dolores Gutierrez Alanis
de novo shoot phenotype in Tobacco.



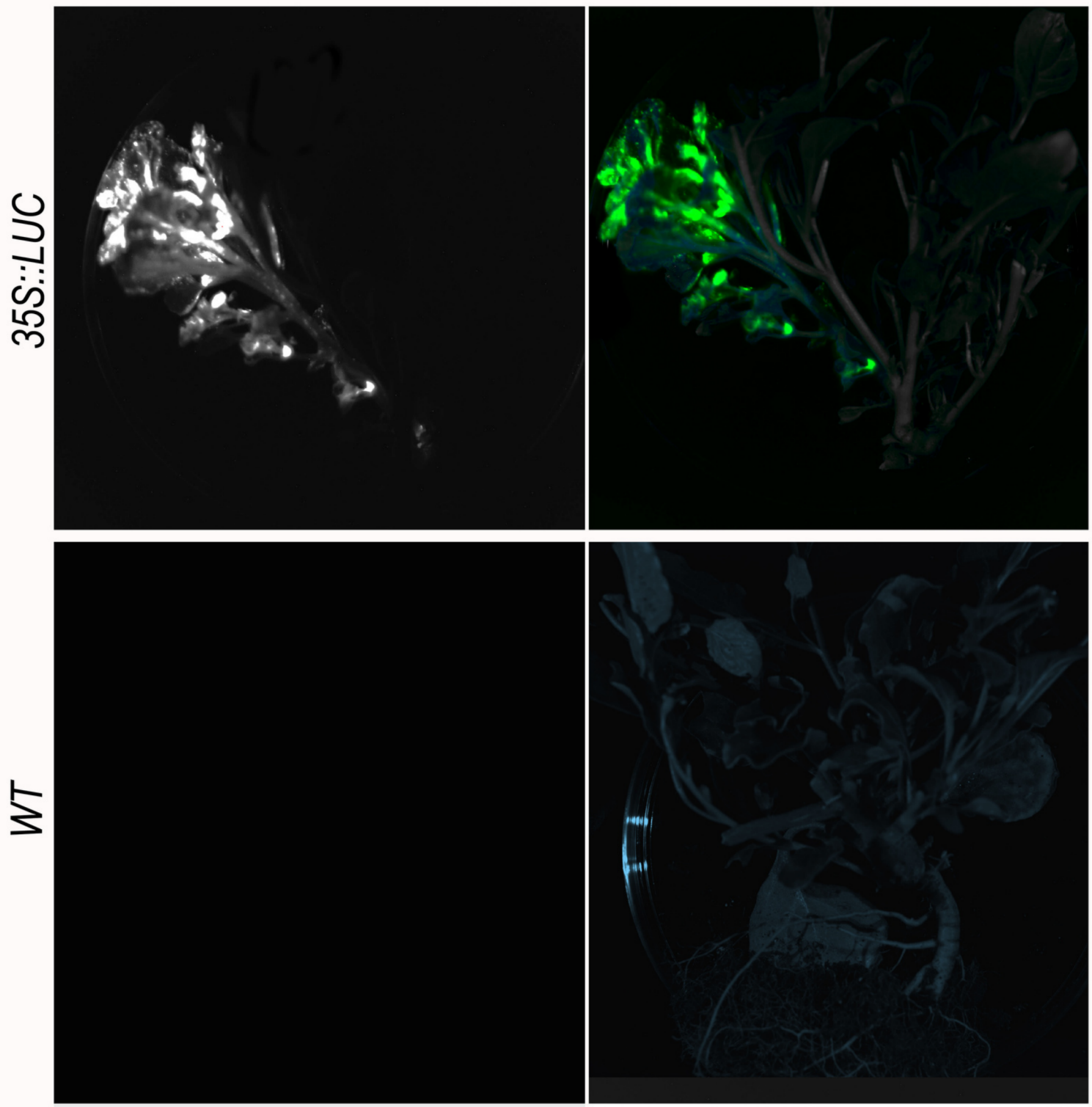
Dolores Gutierrez Alanis
Transgenic *de novo* shoot in Tobacco.



Dolores Gutierrez Alanis
Cross section showing *de novo* shoot induction in cotton callus at early stages of development.



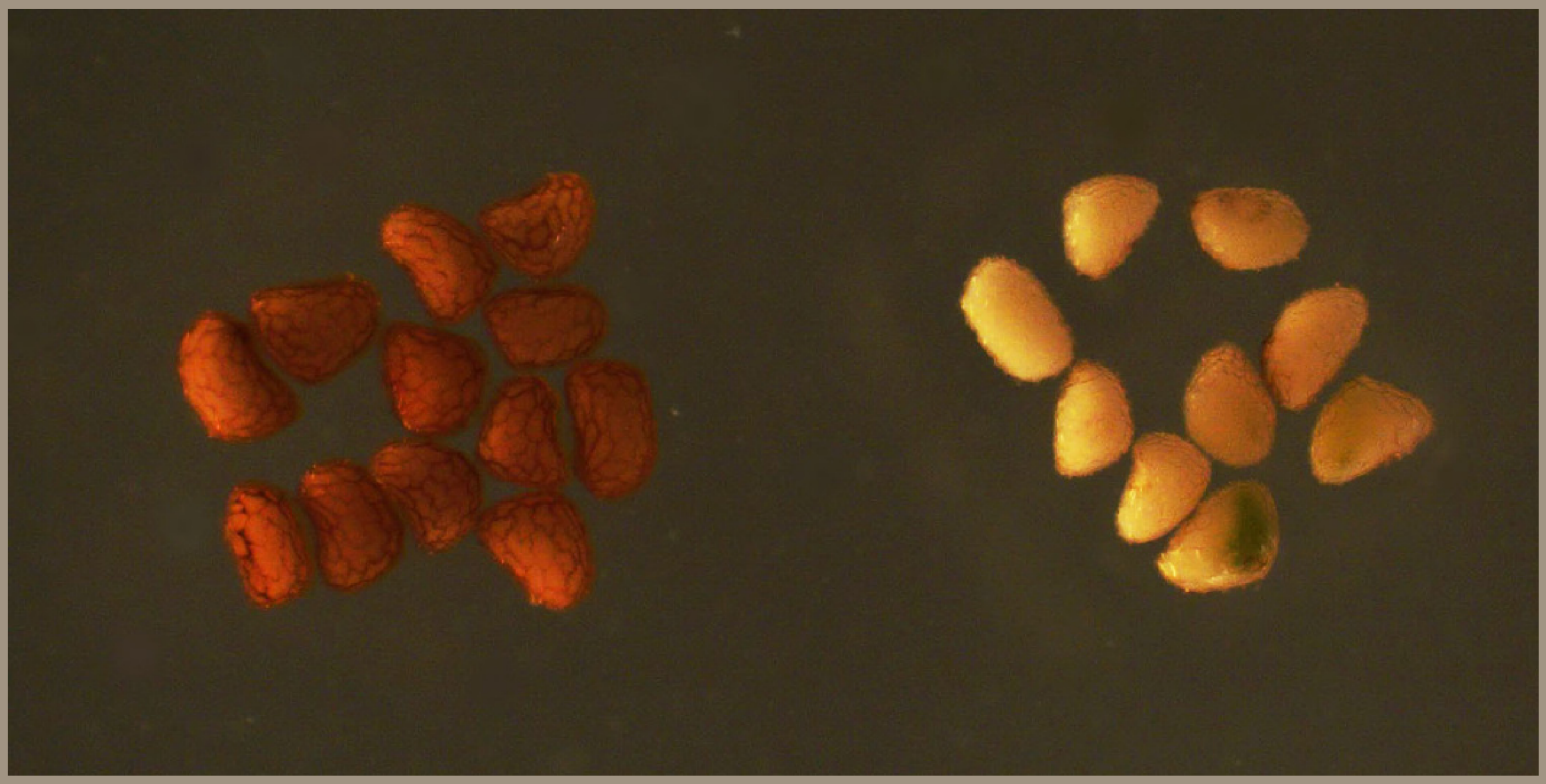
Dolores Gutierrez Alanis
Flowers of transgenic tobacco branches.



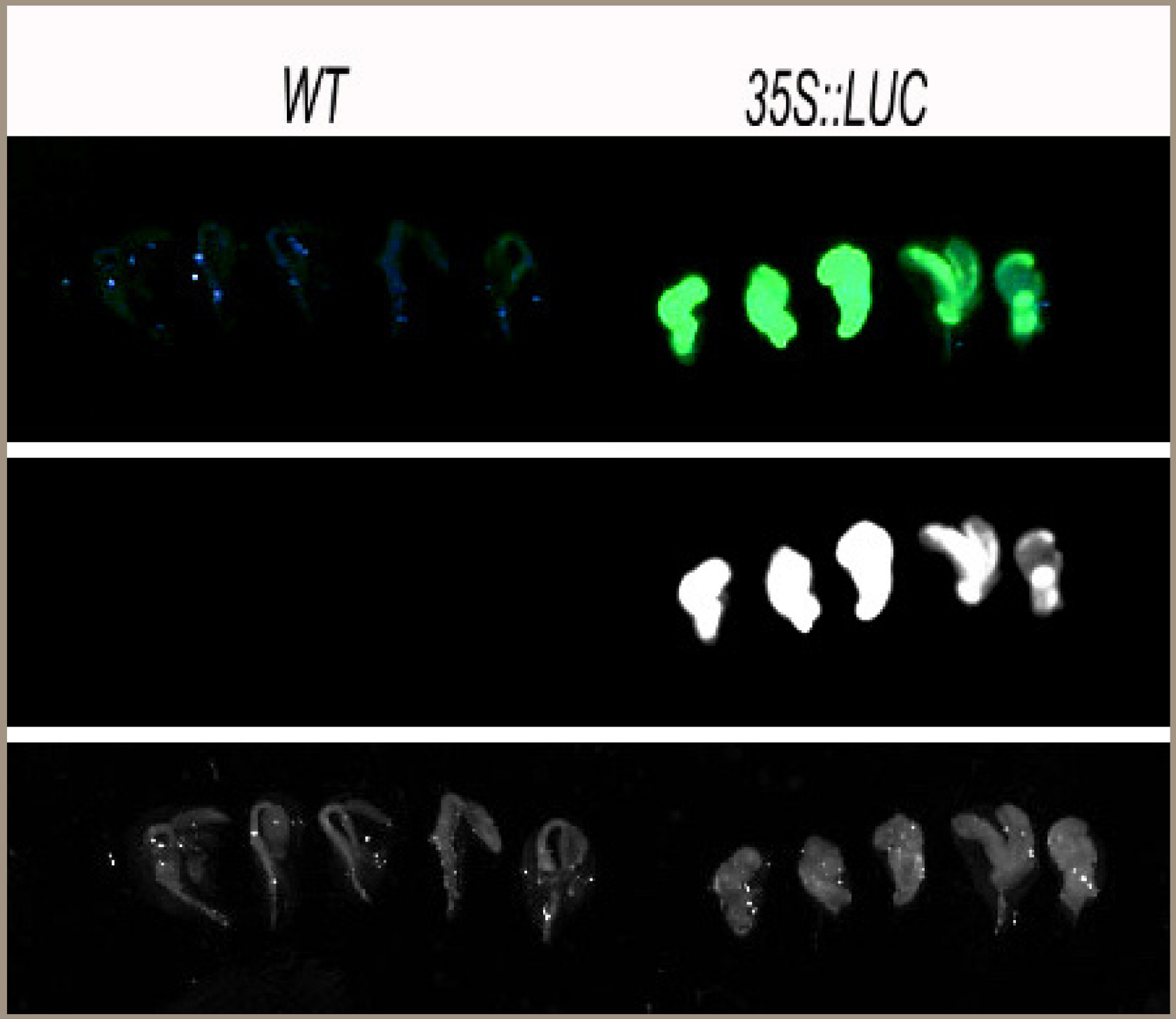
Dolores Gutierrez Alanis
Transgenic de *novo* shoot in Tobacco.

Dolores Gutierrez Alanis
Shoot meristems of transgenic tobacco branches.

Dolores Gutierrez Alanis
Cross section showing *de novo* shoot induction in cotton callus.

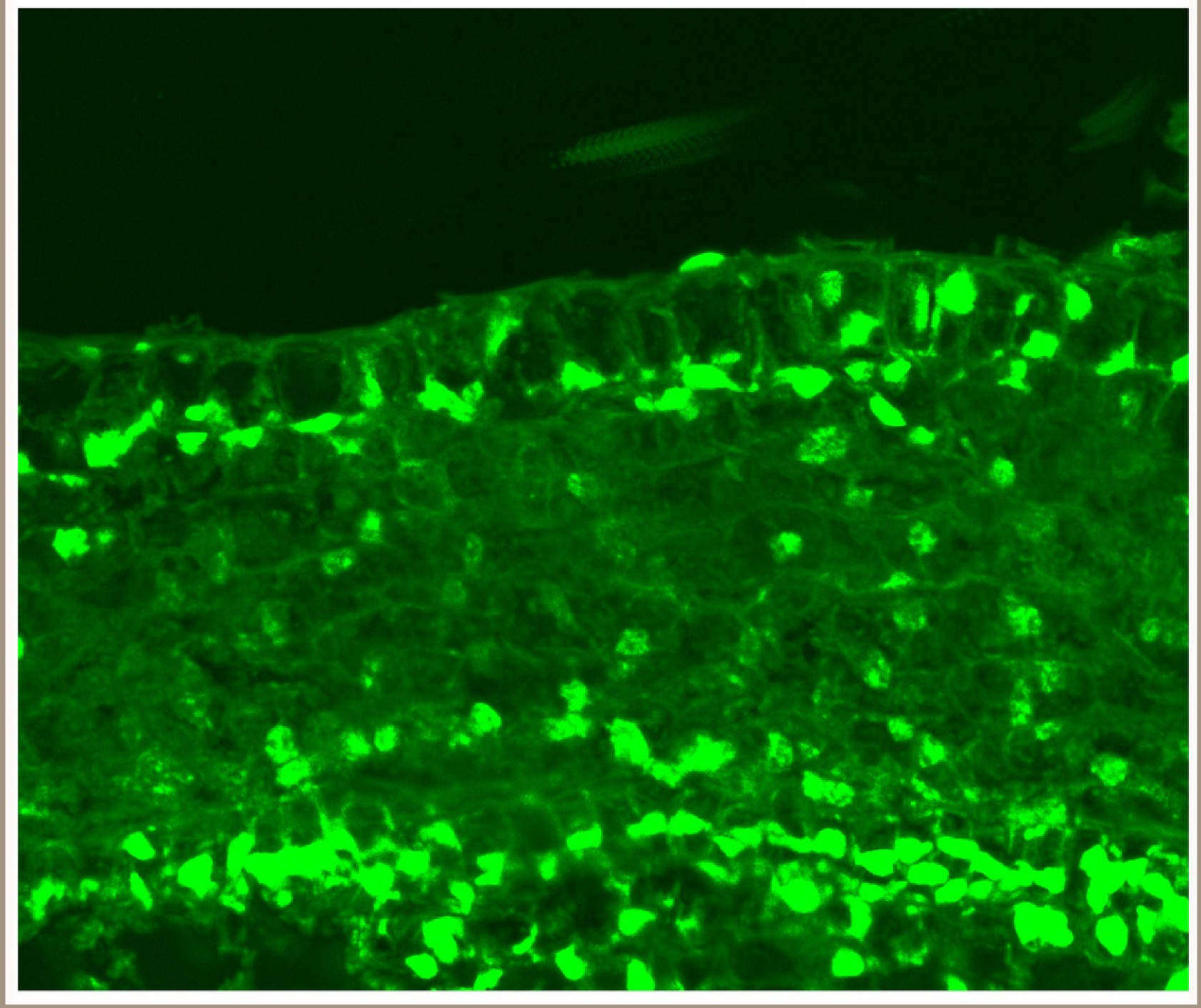


Dolores Gutierrez Alanis
Phenotype of transgenic tobacco seeds.

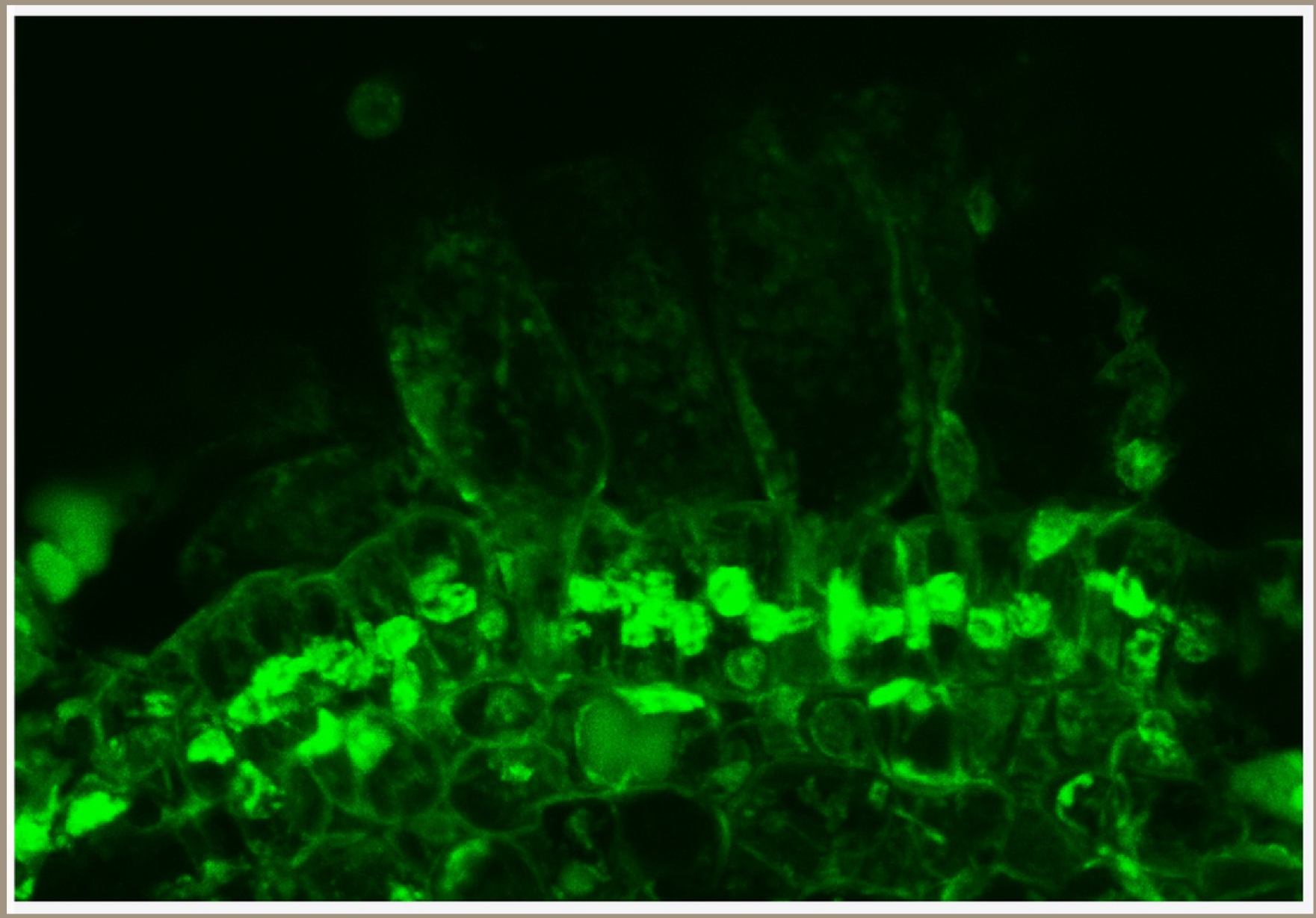


Dolores Gutierrez Alanis
Tobacco transgenic seedlings.

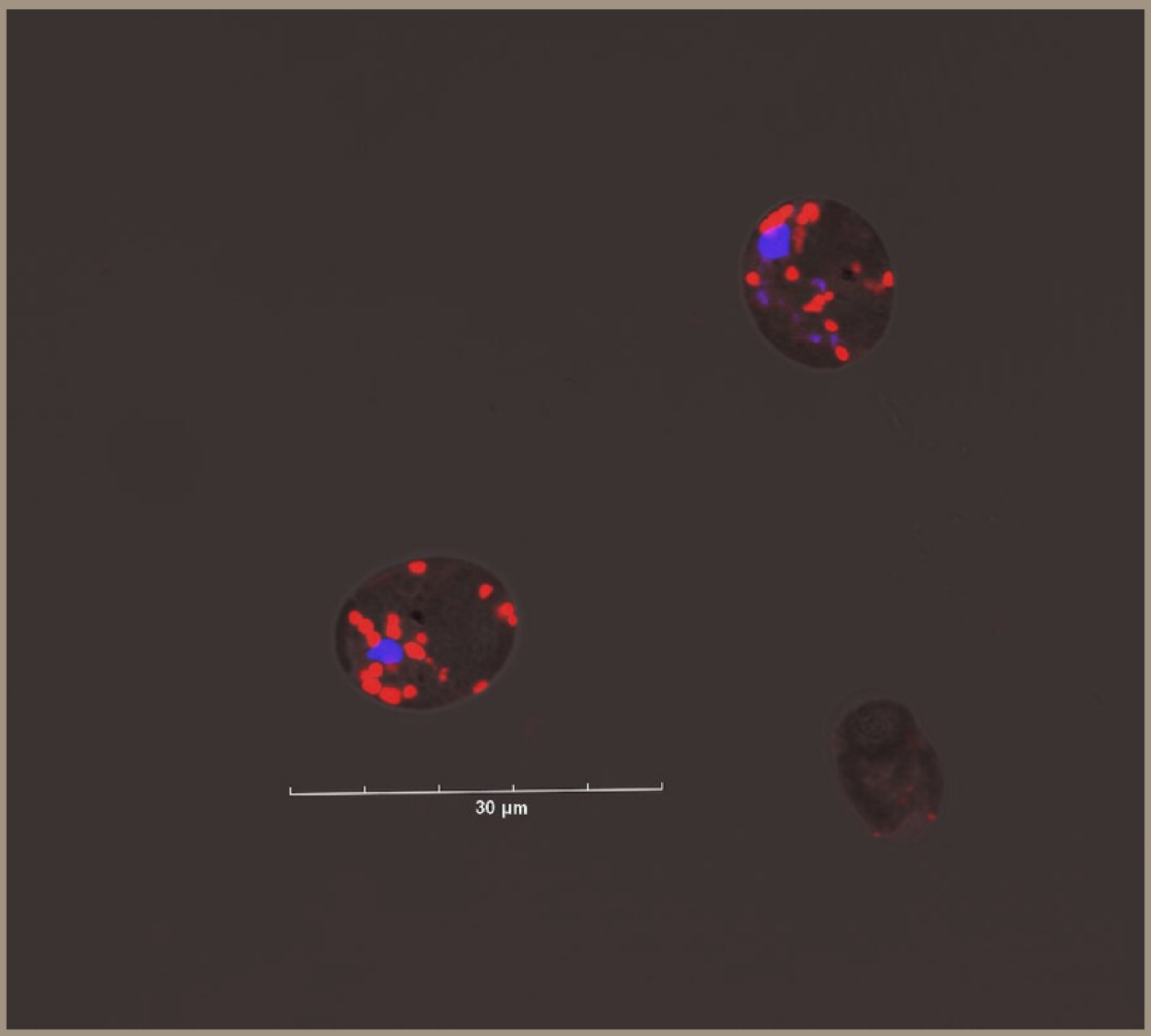
Dolores Gutierrez Alanis
Tobacco *de novo* shoot induction at early stages of development.



Lenin Yong
The calm before the storm
Cotton fiber cell initials.

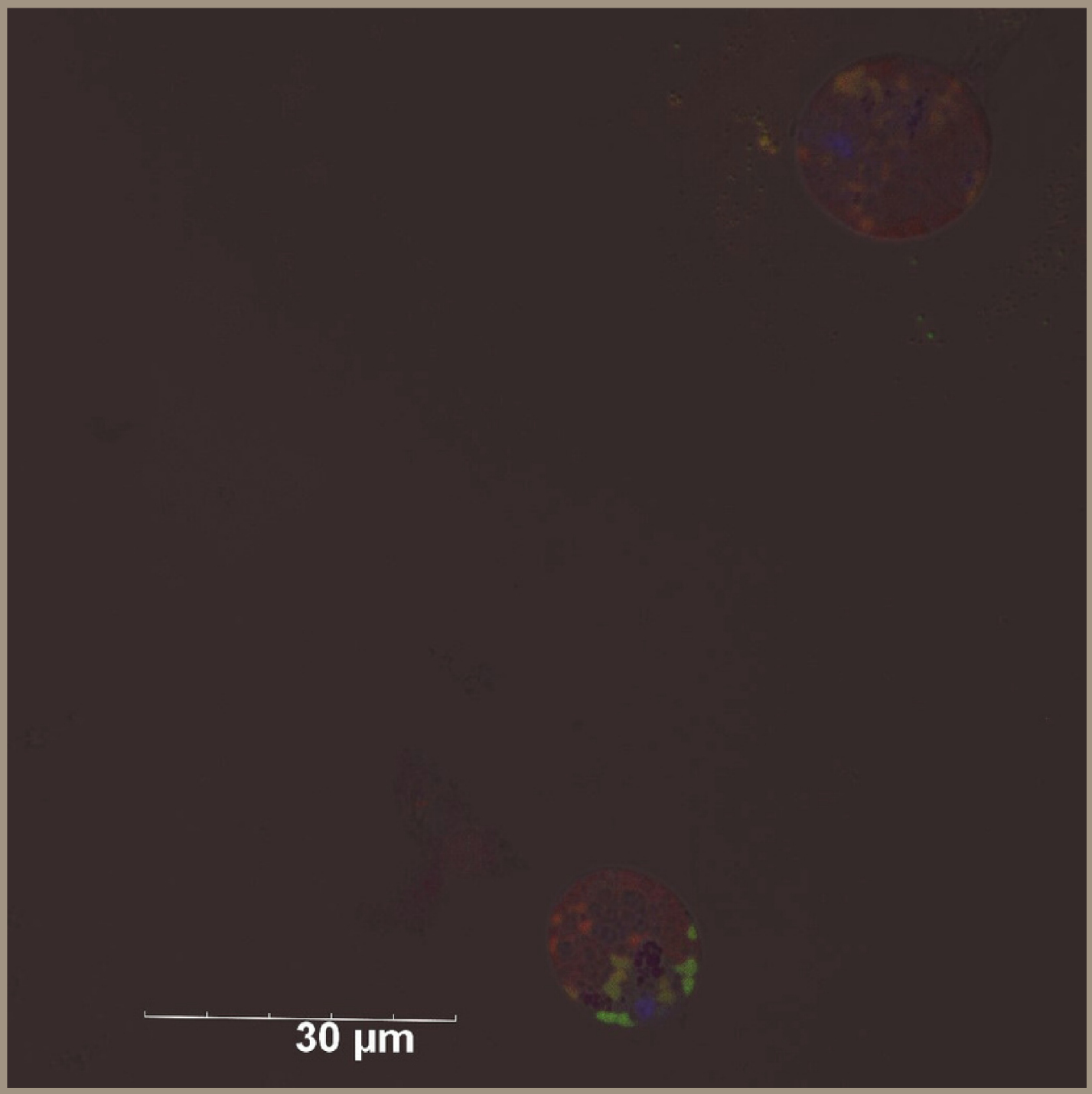


Lenin Yong
Rise of the living thread
Emerging cotton fibers.



Matteo Tosoni

Wt mile red 2dd n- 60x .



Matteo Tosoni
WT724C.

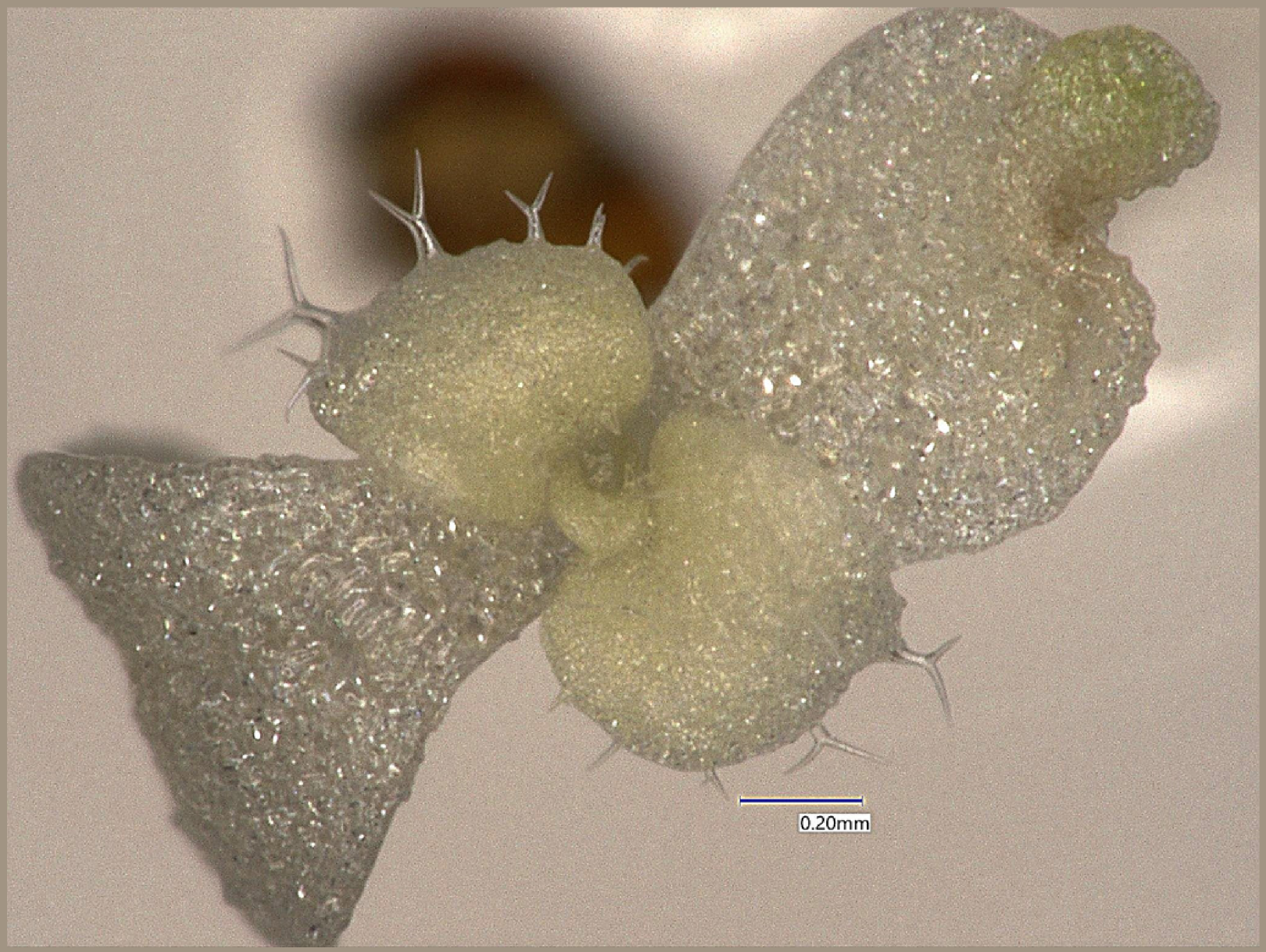
Mylea Lovell
Sugarcane aphid from sorghum.

Mylea Lovell
Whitefly on Soybean.

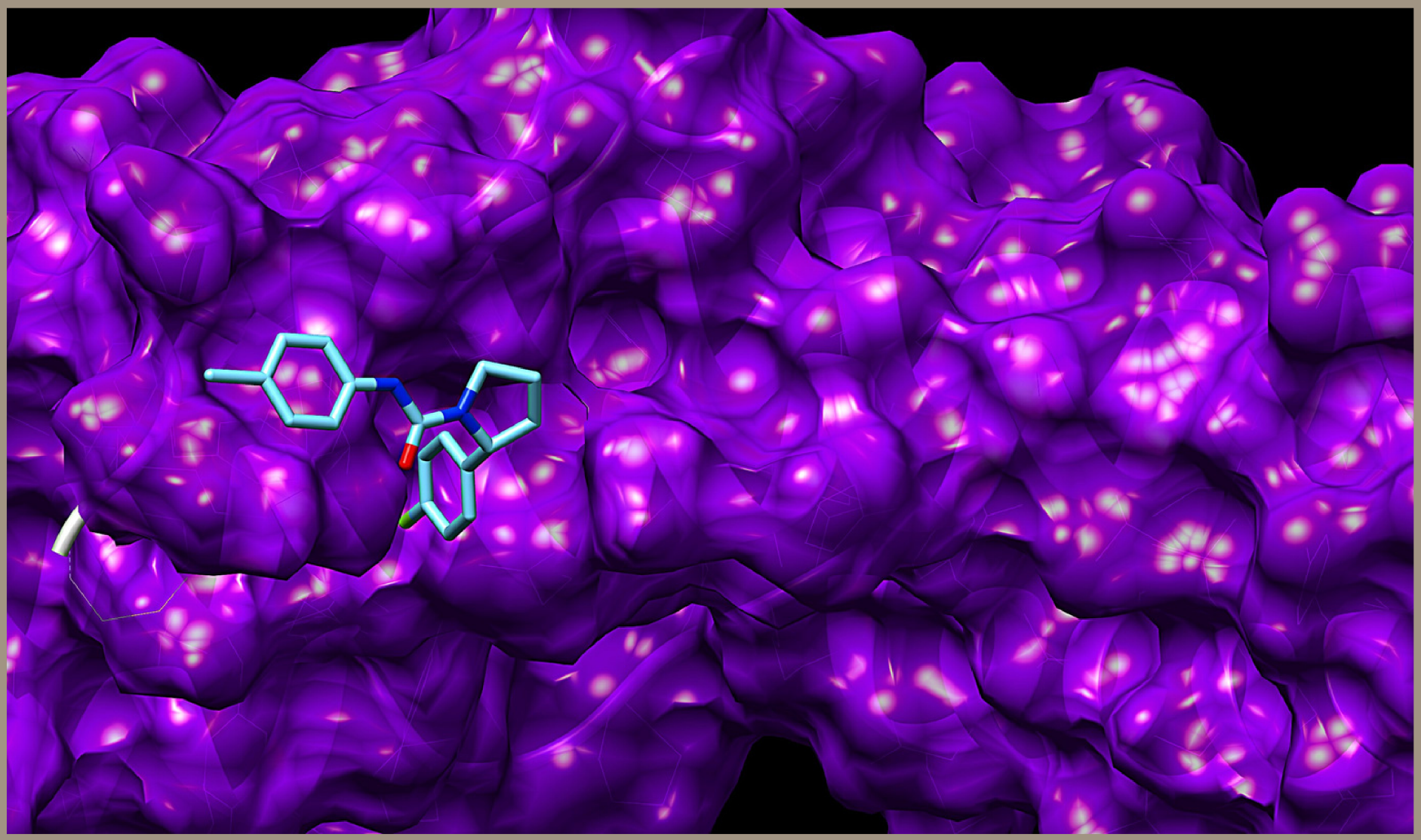
Héctor Rogelio Nájera
Adaxial and Abaxial sides of the leaf .

Héctor Rogelio Nájera
Tobacco trichomes.

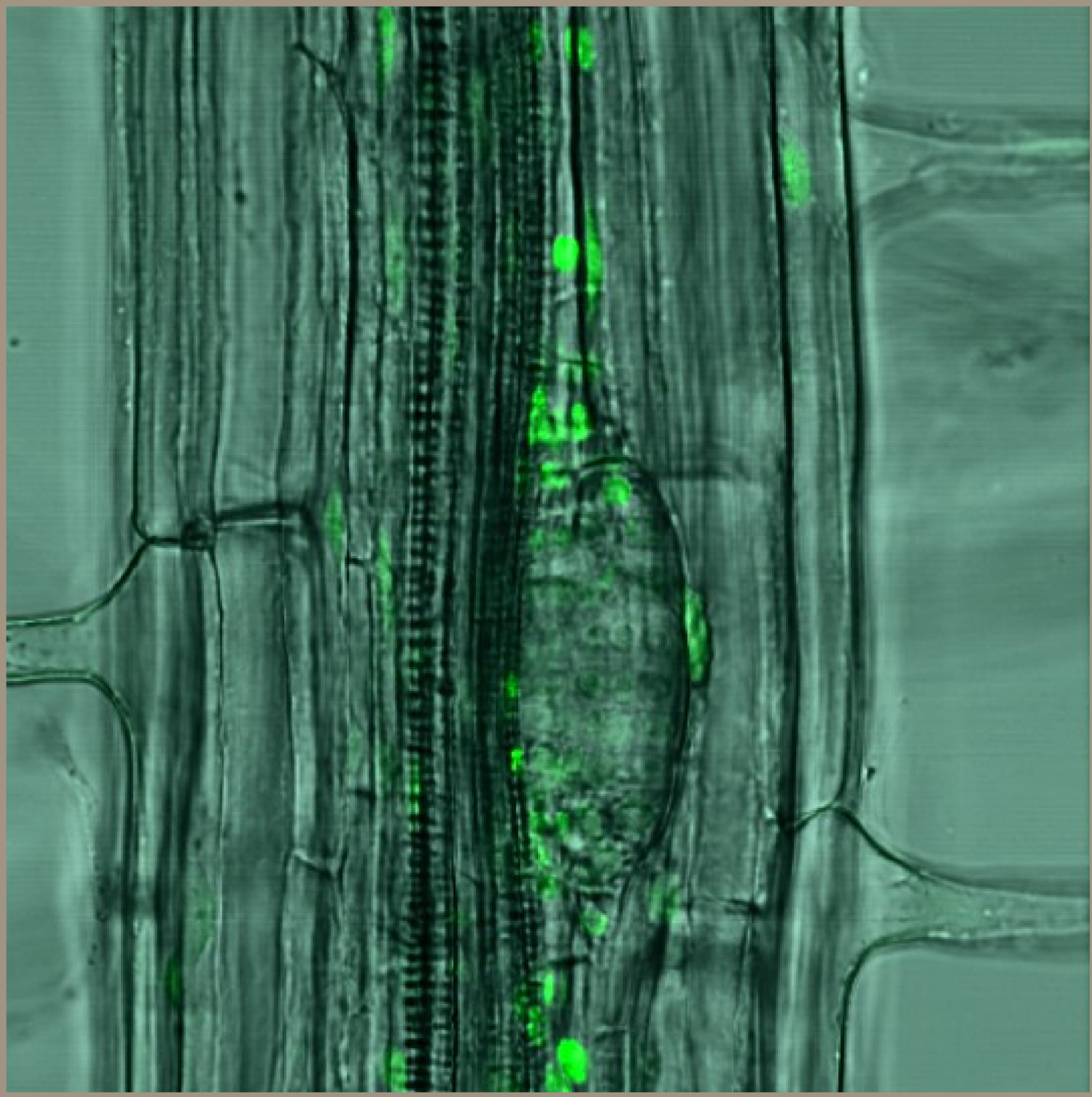
Héctor Rogelio Nájera
Vitrified *Arabidopsis thaliana* 1.



Héctor Rogelio Nájera
Vitrified *Arabidopsis thaliana* 2.



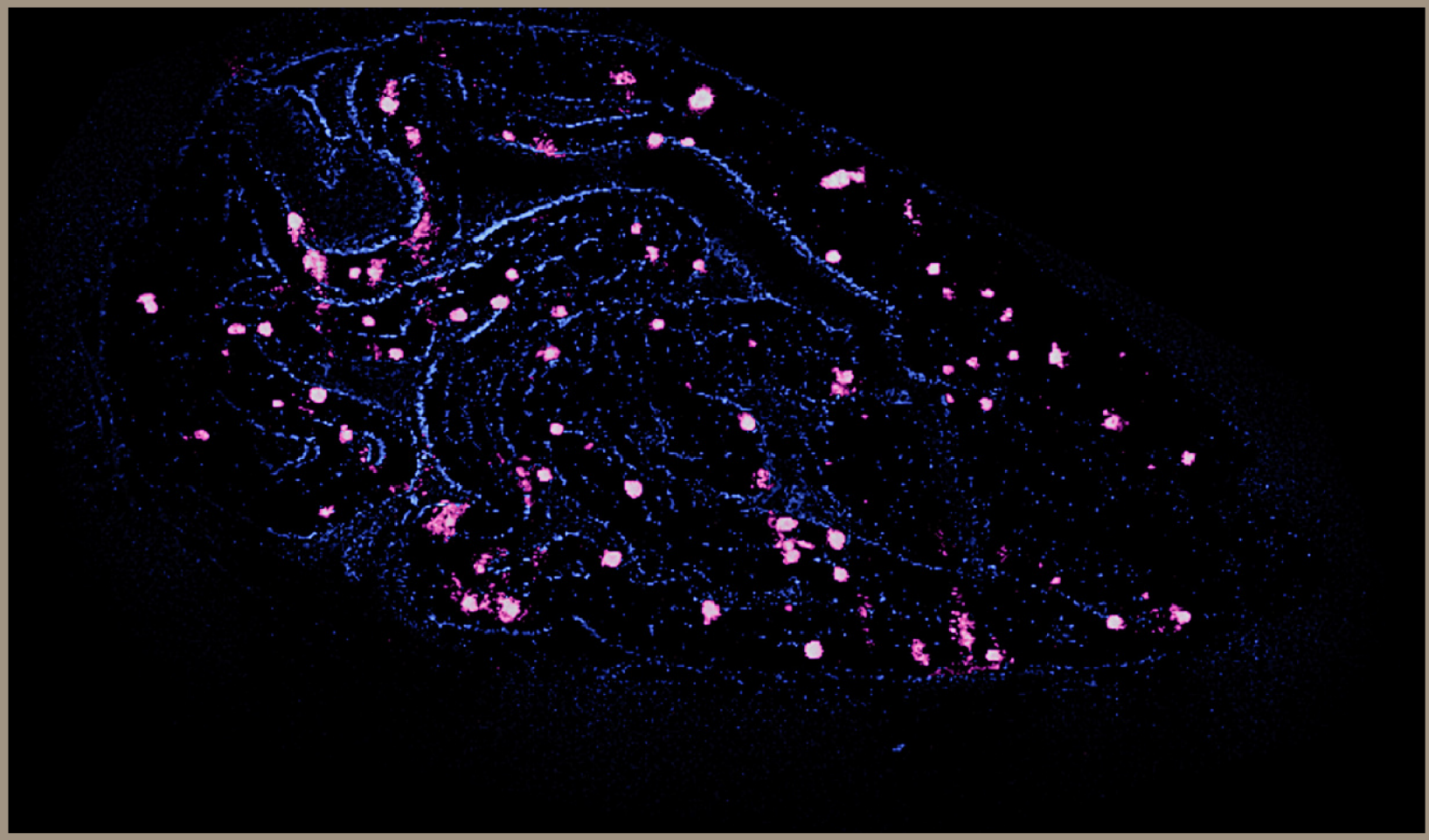
Héctor Rogelio Nájera
Molecular Docking.



Héctor Rogelio Nájera
GFP in roots.

Héctor Rogelio Nájera
MALDI-Imaging of citric acid in roots.

Héctor Rogelio Nájera
GFP seeds.



Héctor Rogelio Nájera
MALDI-Imaging of gossypol in cotton seed section.

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