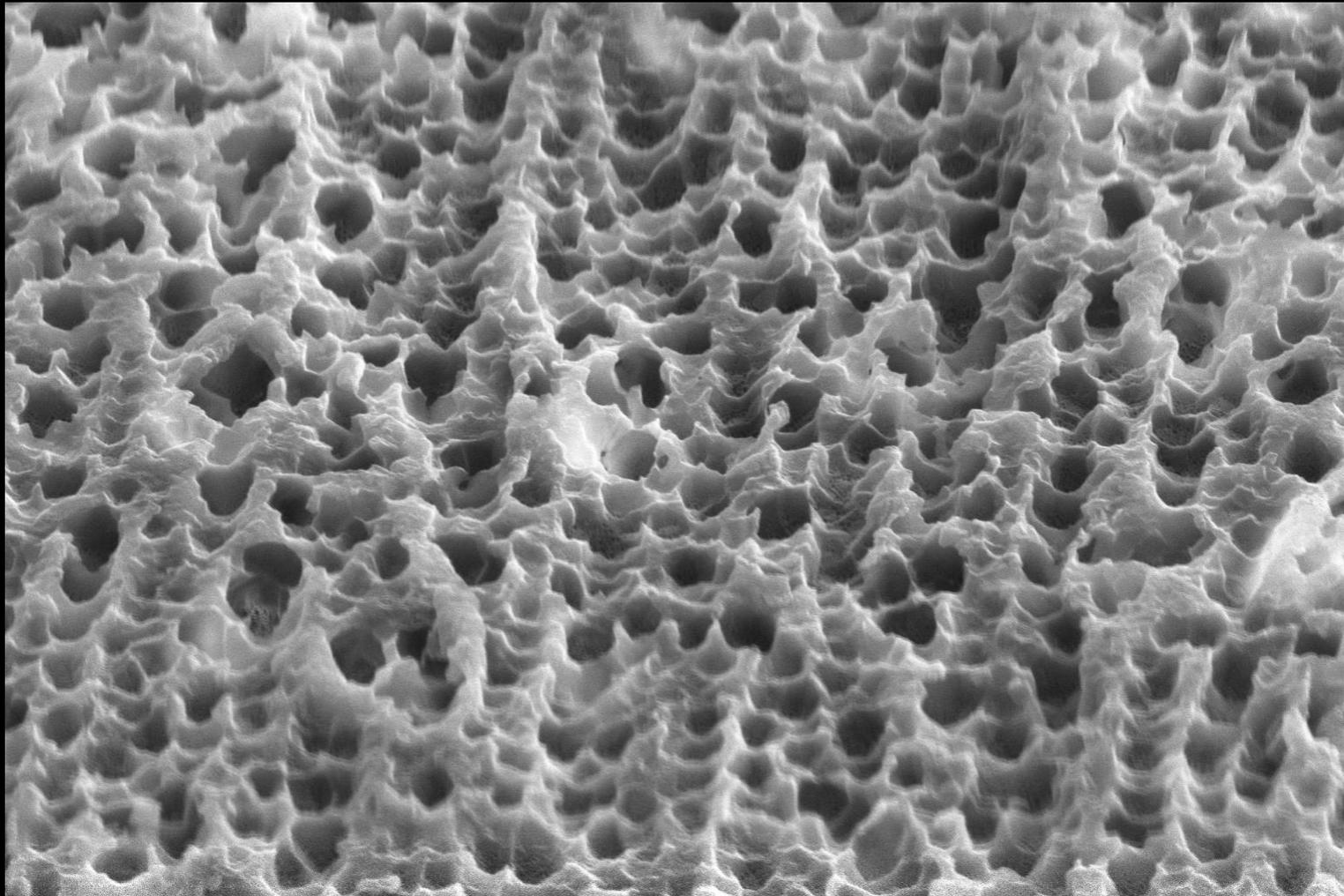


“My Puppy”

EVA
K-12 Student

SEM HV: 5.0 kV	WD: 46.31 mm		MIRA3 TESCAN
SEM MAG: 258 x	Det: SE		200 μ m



“Nano pumice”

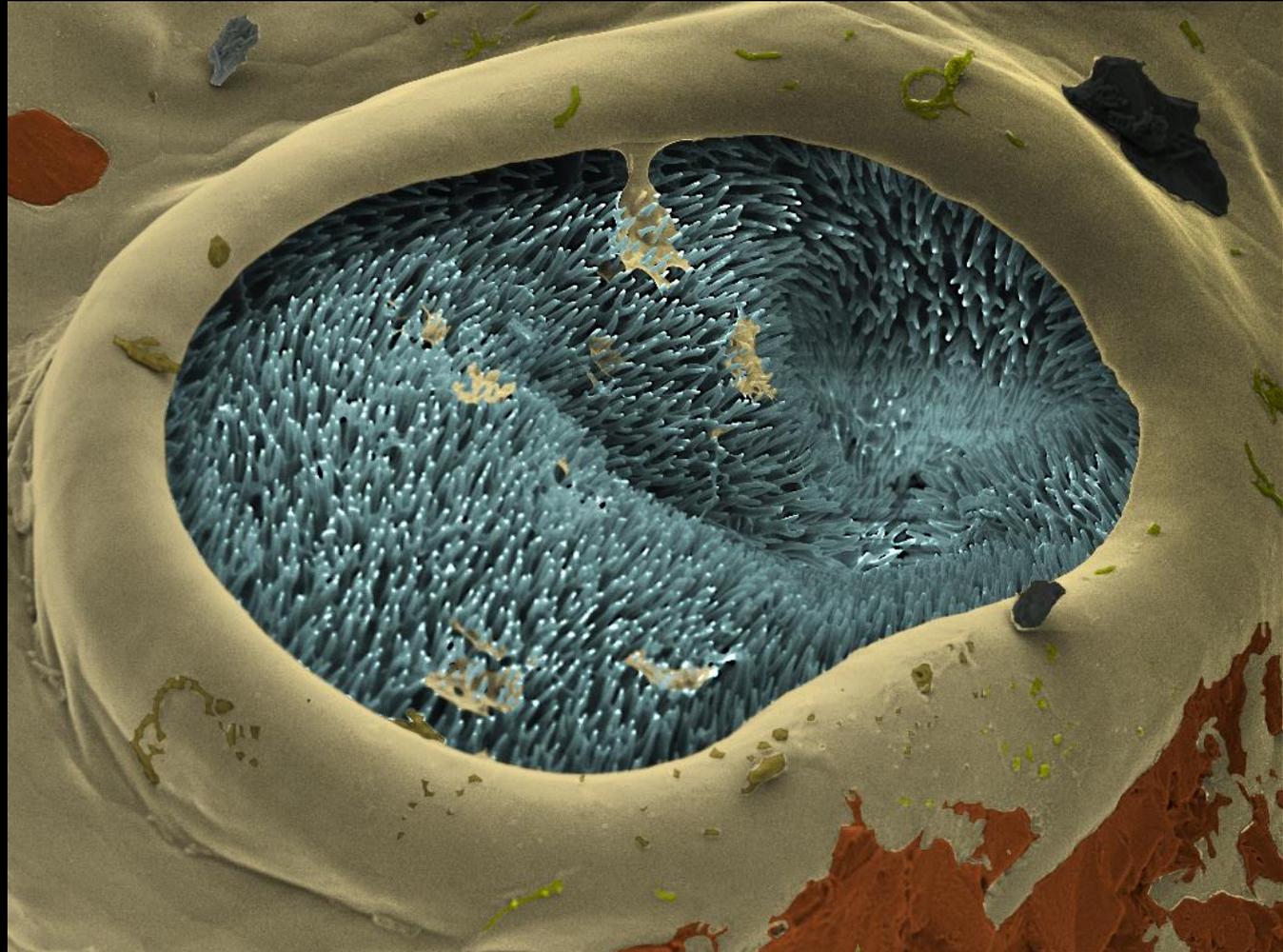
Closeup SEM of a roughened Liquid Crystal Polymer surface that looks very similar to pumice rock.

Ladan Jiracek
Graduate Student



HV	curr	WD	HFW	mag	tilt	det
10.00 kV	0.80 nA	3.9 mm	31.9 μm	6 500 x	52.0 °	ETD

10 μm
E-beam



“Vortex of Souls”

A sensor inside a little nipple on a centipede. It is located above each of its legs. The little hairs inside are probably for sensing vibrations. False Colored

Hunter Marton
RSC Staff

SEM HV: 5.0 kV

WD: 15.46 mm

MIRA3 TESCAN

SEM MAG: 2.83 kx

Det: SE

20 μ m

View field: 97.9 μ m

Date(m/d/y): 09/21/23

UF RSC

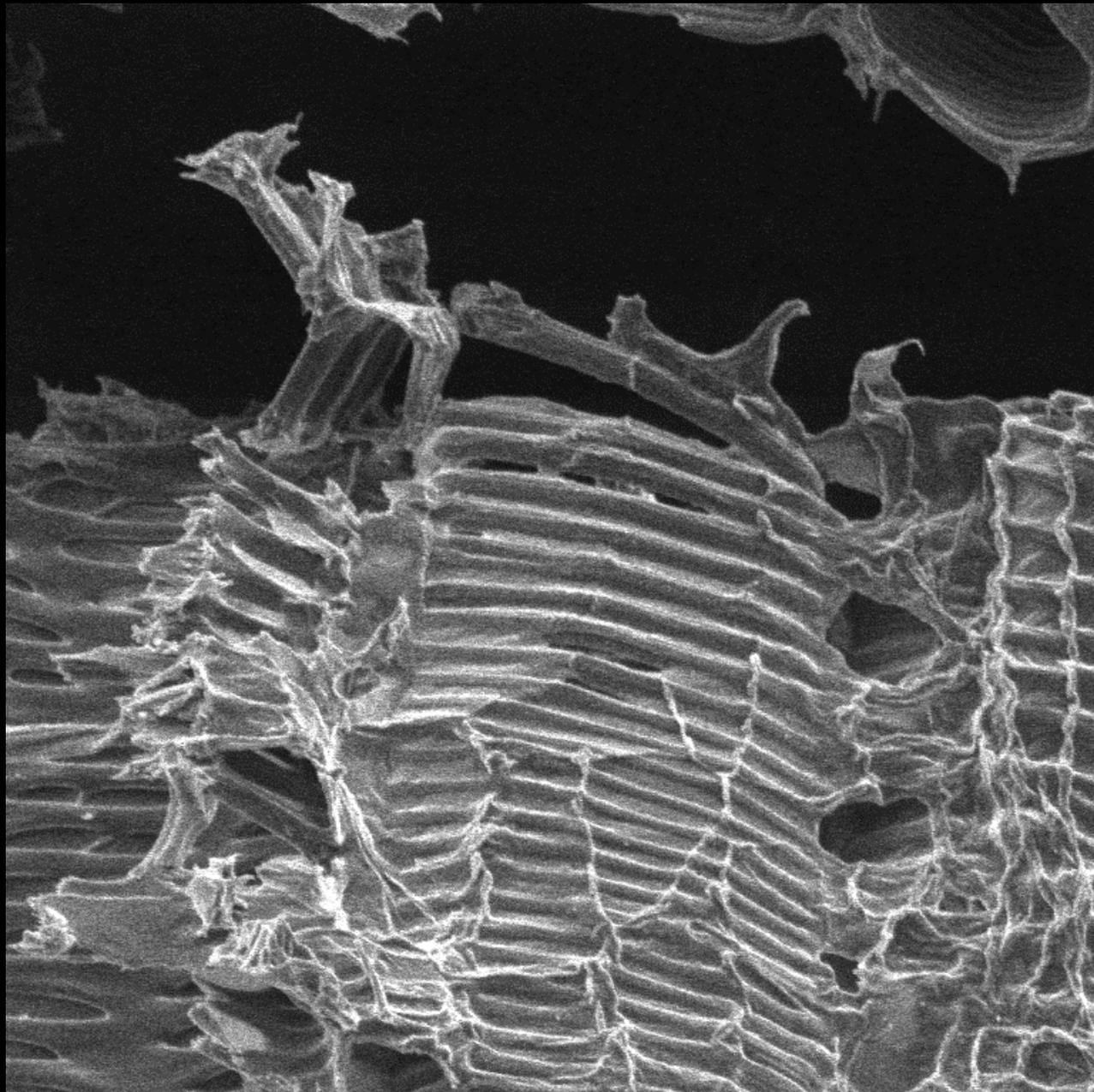


“Eldritch horror mukbang power hour”

The end of an antenna on a bug .

Hunter Marton
RSC Staff

SEM HV: 5.0 kV	WD: 14.94 mm	50 μ m	MIRA3 TESCAN
SEM MAG: 1.52 kx	Det: SE		UF RSC
View field: 182 μ m	Date(m/d/y): 09/21/23		



“Rib Cage”

DQ
K-12 Student

SEM HV: 5.0 kV

WD: 32.13 mm

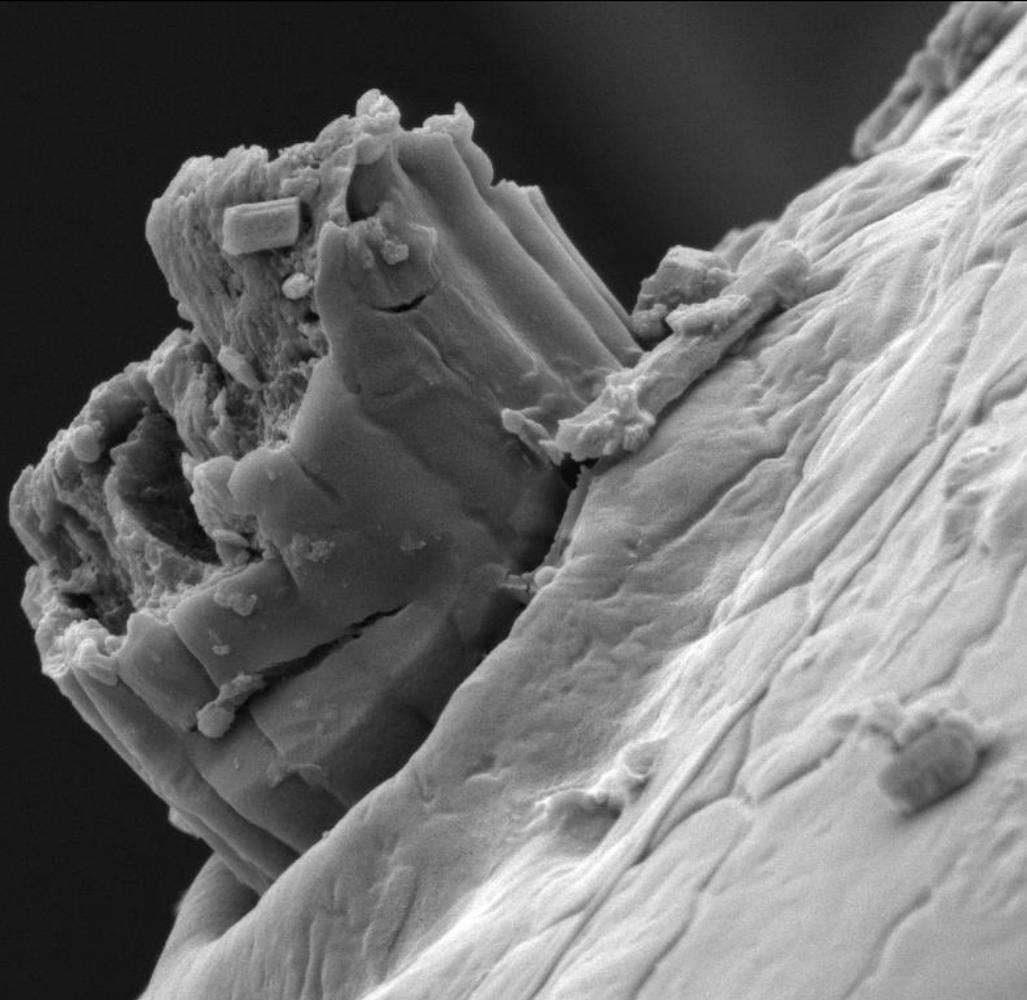


MIRA3 TESCAN

SEM MAG: 2.11 kx

Det: SE

UF RSC



“This is where this rainbow ends.”

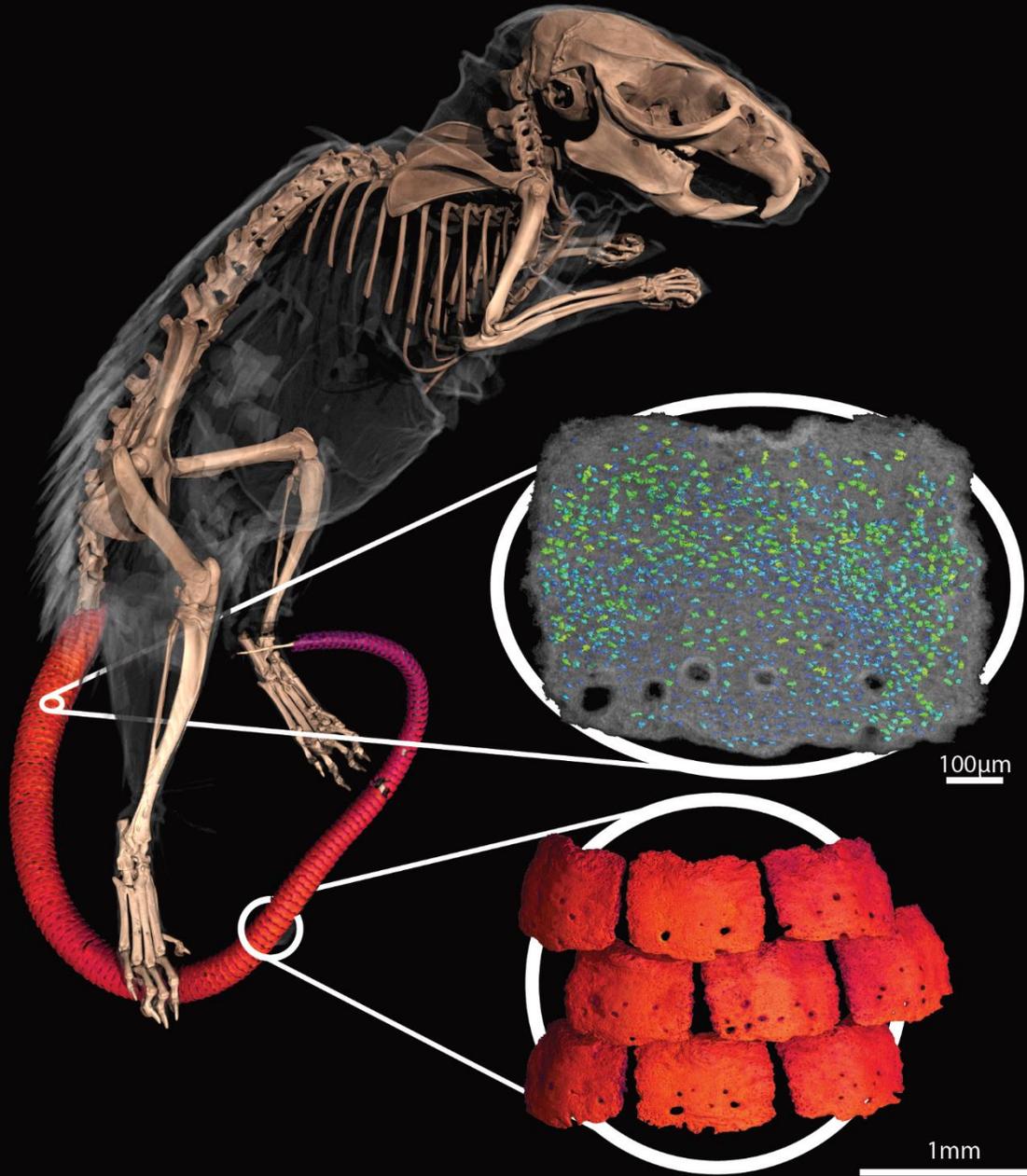
Some sort of broken stalk at the very end of a bug's butt.

Hunter Marton
RSC Staff

SEM HV: 5.0 kV	WD: 15.85 mm		MIRA3 TESCAN
SEM MAG: 17.9 kx	Det: SE	2 μ m	
View field: 15.5 μ m	Date(m/d/y): 09/21/23	UF RSC	

“Micro and NanoCT scan of Spiny Mouse osteoderms”

Micro and NanoCT scans of a spiny mouse *Acomys cahirinus* detailing the newly discovered osteoderms (bony plates) in the tail. Prior to this work, the only mammals known to possess these armored structures were Armadillos and their close extinct relatives. NanoCT reveals patterns of osteocyte lacunae (voids left in the bone from the nuclei of the bone growing cells) which can inform us about how these bones develop.

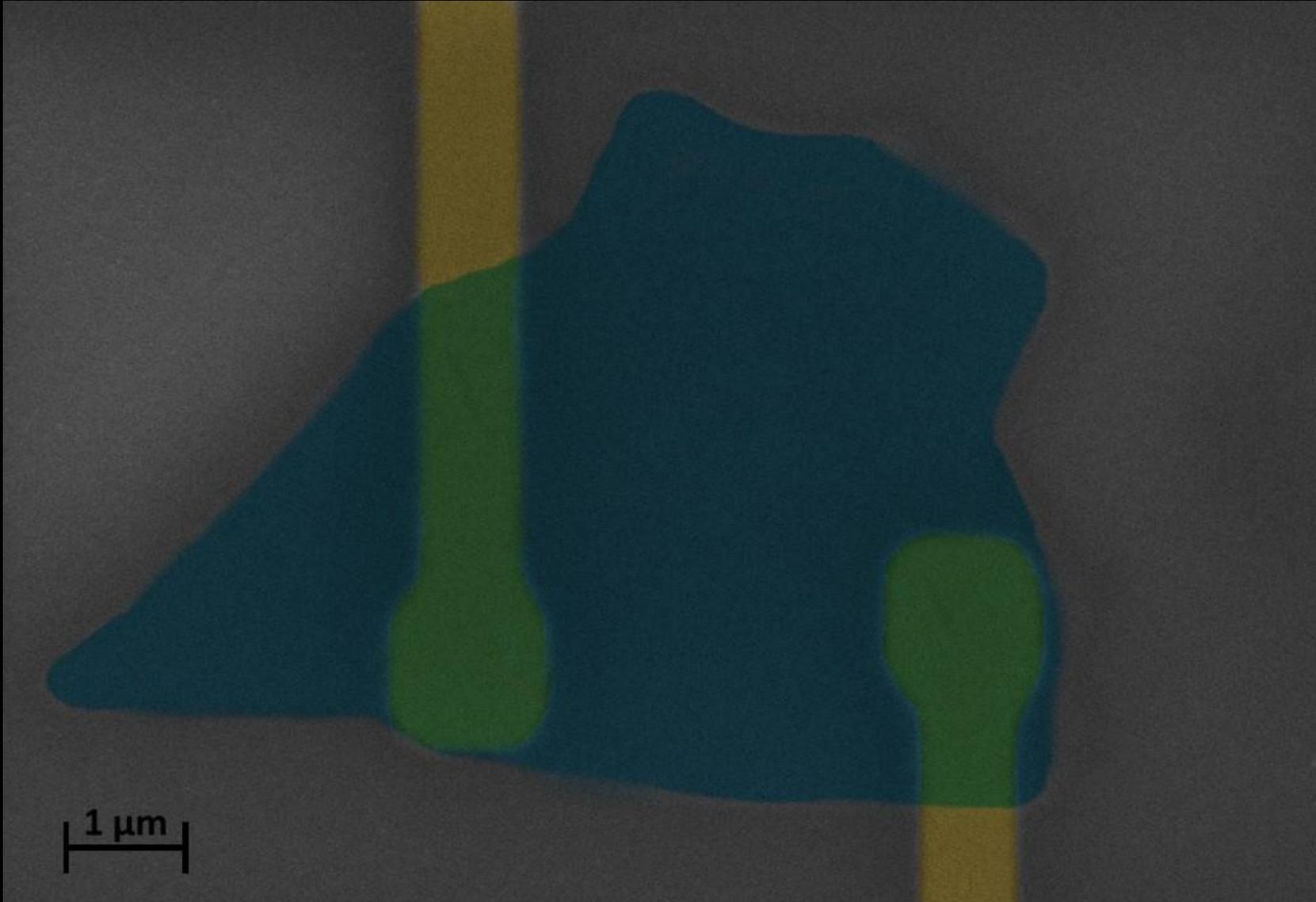


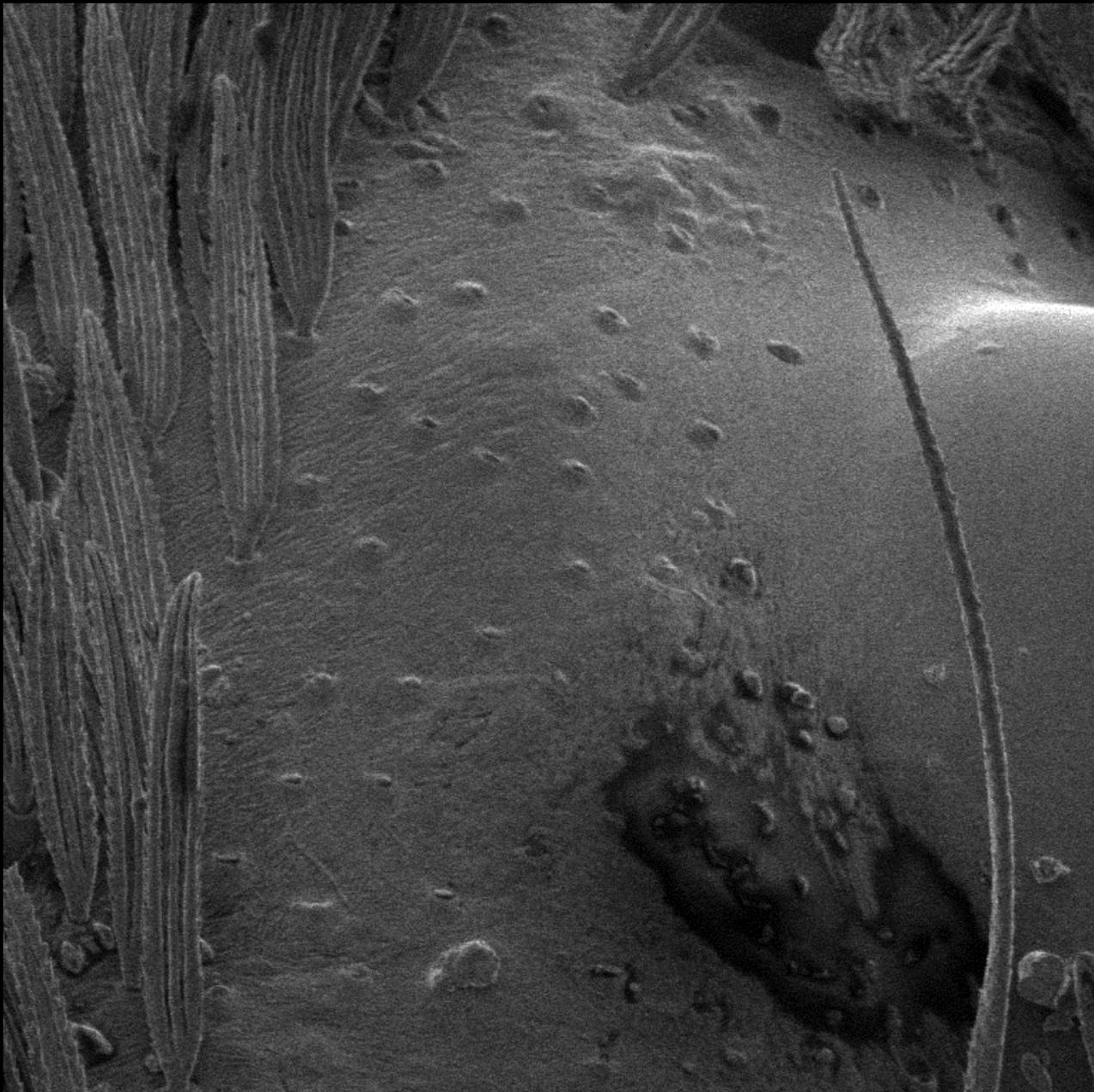
Edward Stanley, Ph.D.
FLMNH/RSC Staff

“Nanoscale 2D Material Photodetector”

This colorized SEM image shows a photodetector made out MoS₂, a 2D transition metal dichalcogenide. Electrical connections are shown in gold, while the material is shown in blue, both are sitting on top of a polymer substrate. This is one element out of a larger array of detectors.

Russell Schwartz
Graduate Student





“Plucking Feathers”

DQ
K-12 Student

SEM HV: 5.0 kV

WD: 29.80 mm

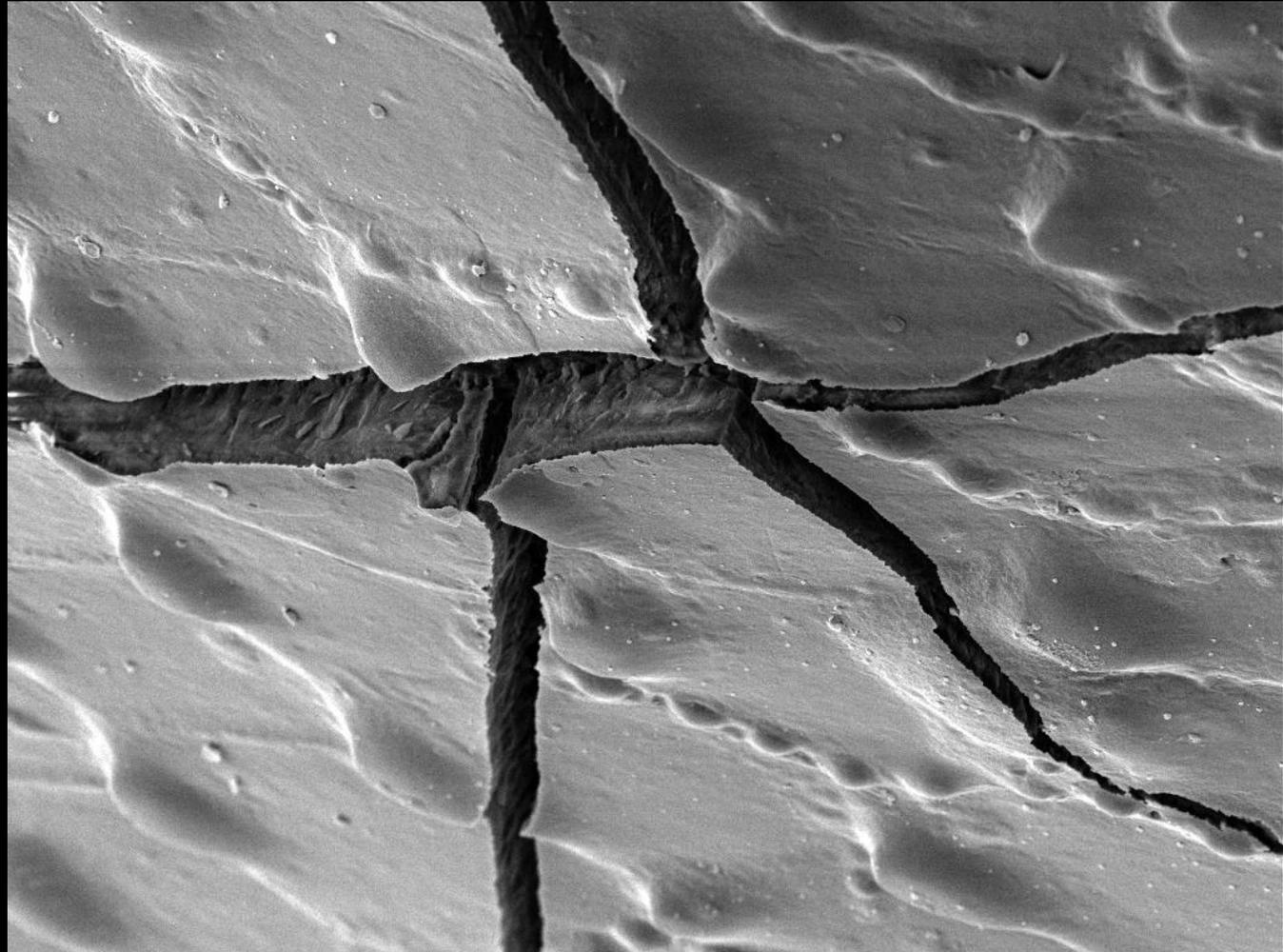
MIRA3 TESCAN

SEM MAG: 1.02 kx

Det: SE

50 μ m

UF RSC

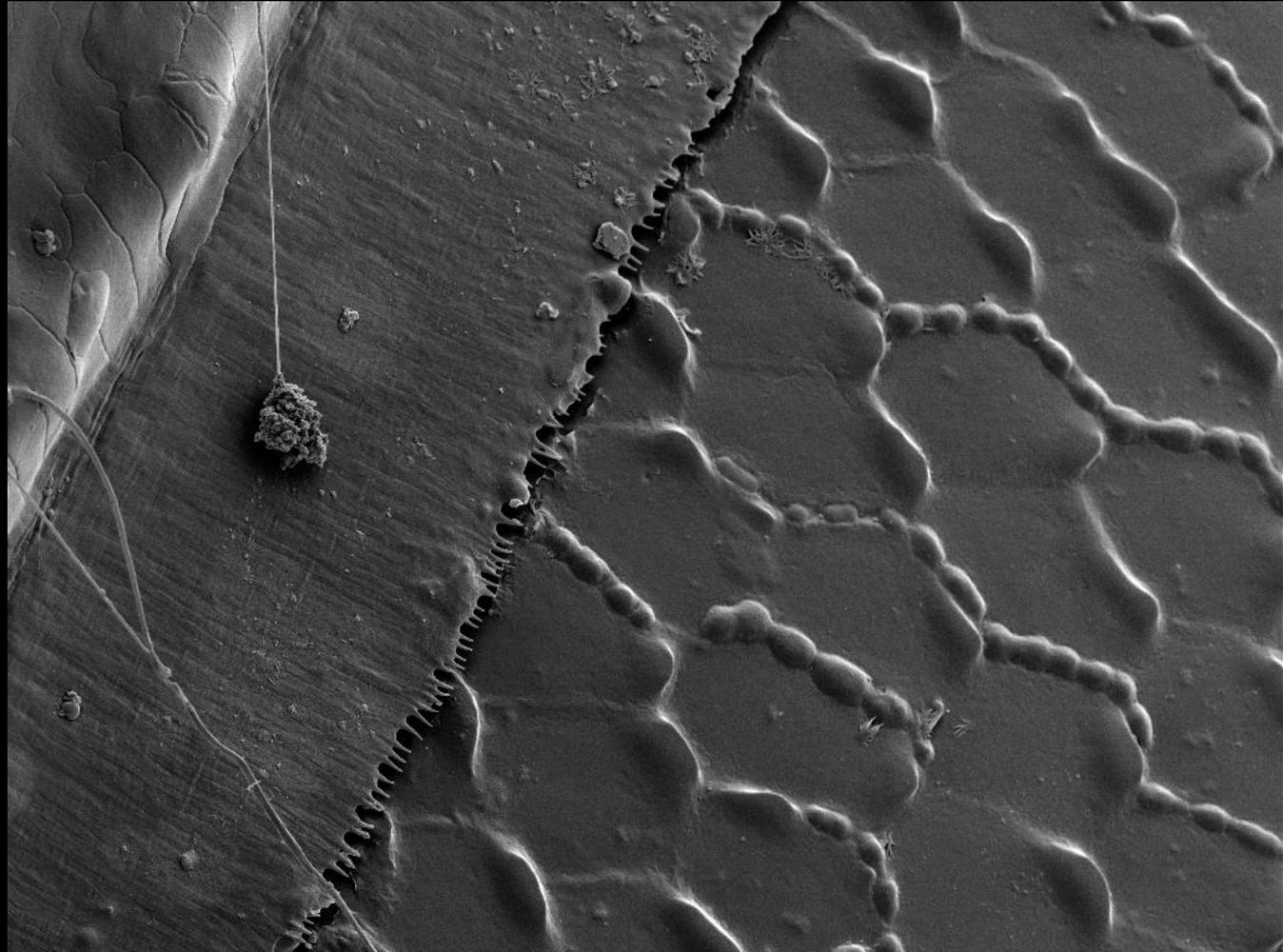


“Cracks in the armor”

A portion of cracked shell on a bug .

Hunter Marton
RSC Staff

SEM HV: 5.0 kV	WD: 15.48 mm	10 μ m	MIRA3 TESCAN
SEM MAG: 6.22 kx	Det: SE		UF RSC
View field: 44.5 μ m	Date(m/d/y): 09/21/23		



“Beach day!”

A close up on where two pieces of a bug's shell come together.

SEM HV: 5.0 kV

WD: 15.08 mm



MIRA3 TESCAN

SEM MAG: 2.69 kx

Det: SE

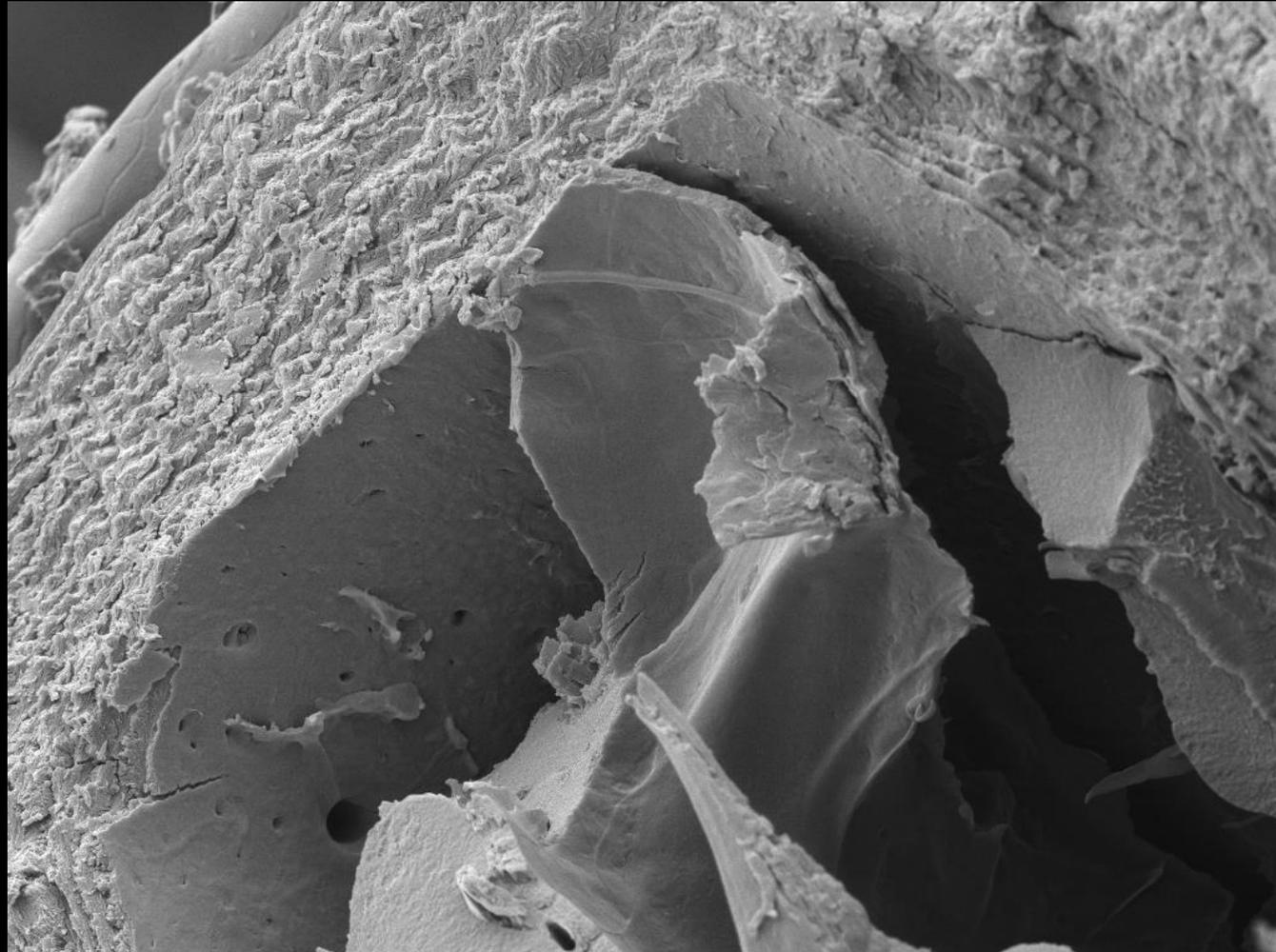
20 μ m

View field: 103 μ m

Date(m/d/y): 09/21/23

UF RSC

Hunter Marton
RSC Staff

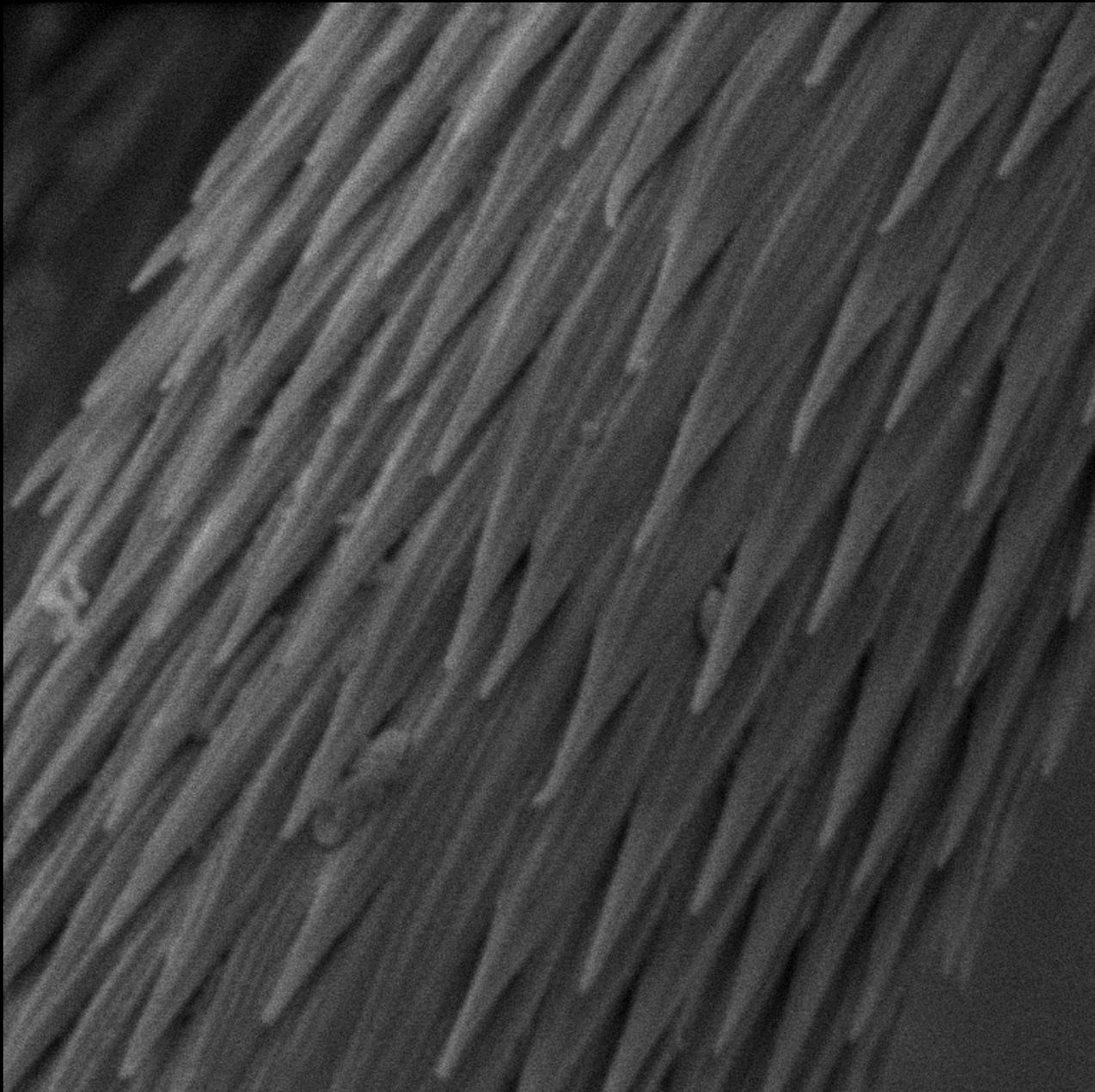


“Breaking Bread”

A broken piece of leg from a bug.
You can see layers in the walls of its leg.

SEM HV: 5.0 kV	WD: 14.68 mm	10 μ m	MIRA3 TESCAN
SEM MAG: 4.83 kx	Det: SE		UF RSC
View field: 57.3 μ m	Date(m/d/y): 09/21/23		

Hunter Marton
RSC Staff



“Hairy Legs 2”

EVA
K-12 Student

SEM HV: 5.0 kV

WD: 31.31 mm



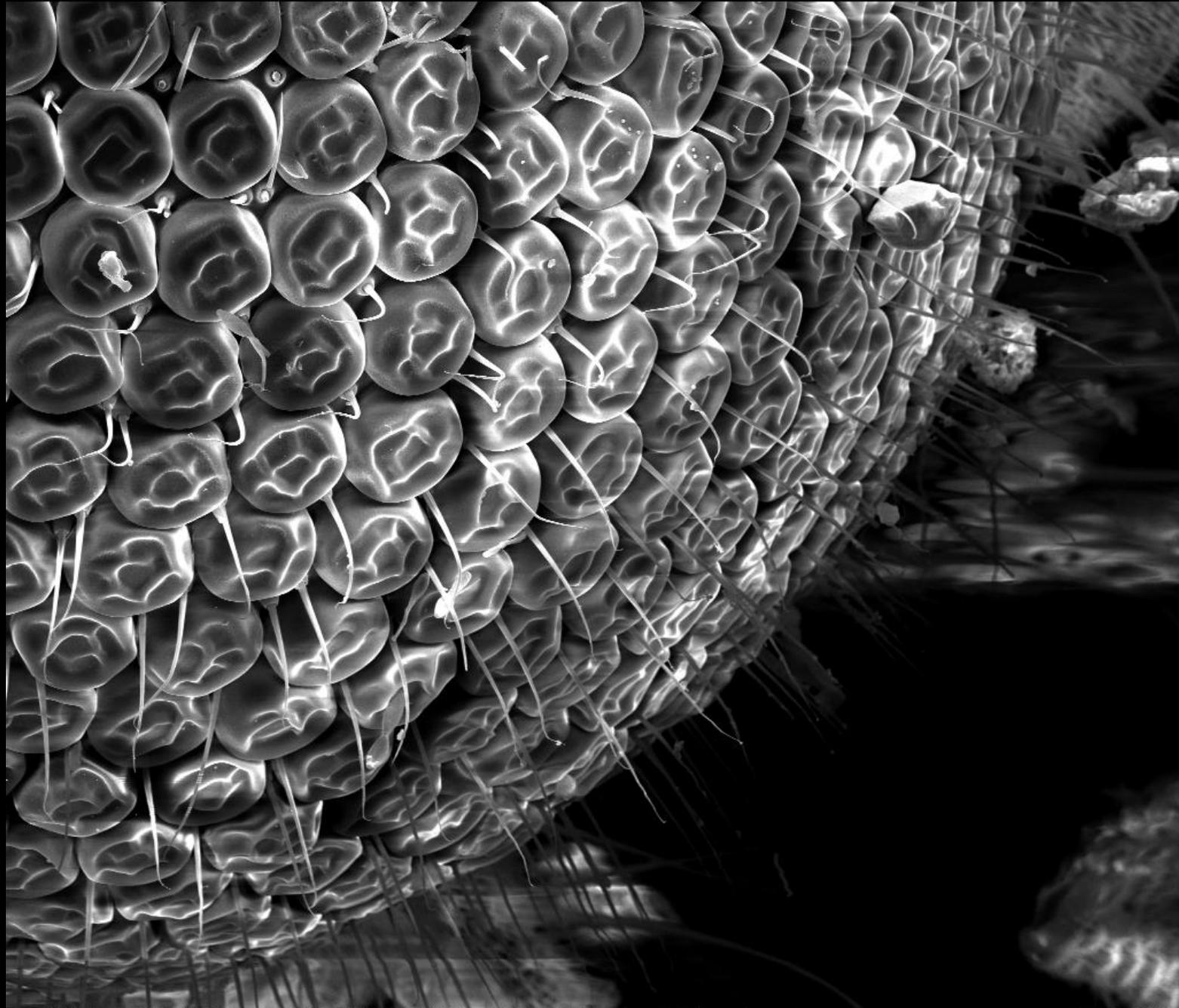
MIRA3 TESCAN

SEM MAG: 10.9 kx

Det: SE

5 μ m

UF RSC



“Alien Planet”

An exploration of an unknown world, the eyes of a fly. Taken at 800x the eye resembles an alien planet.

Marco Downing
RSC Staff

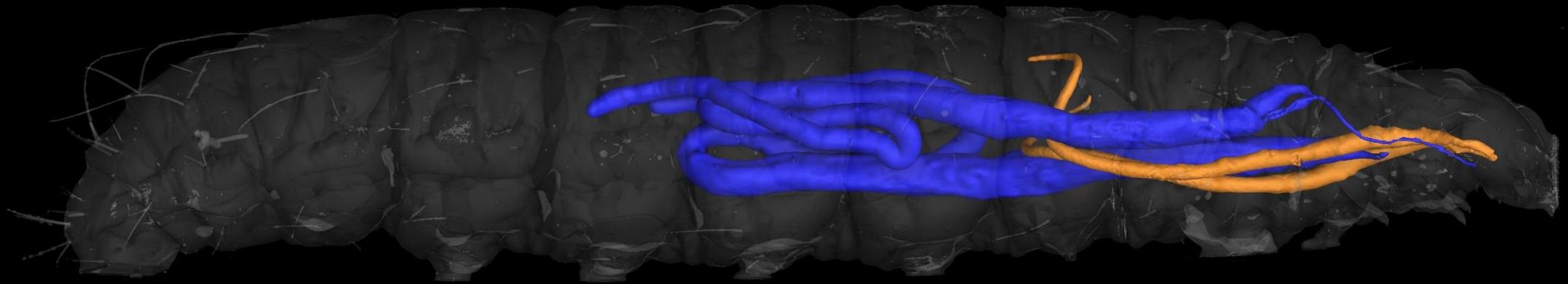


8/7/2023	HV	det	WD	mag	spot
1:12:27 PM	15.0 kV	ETD	4.7 mm	800 x	3.5

50 μ m
Nova NanoSEM

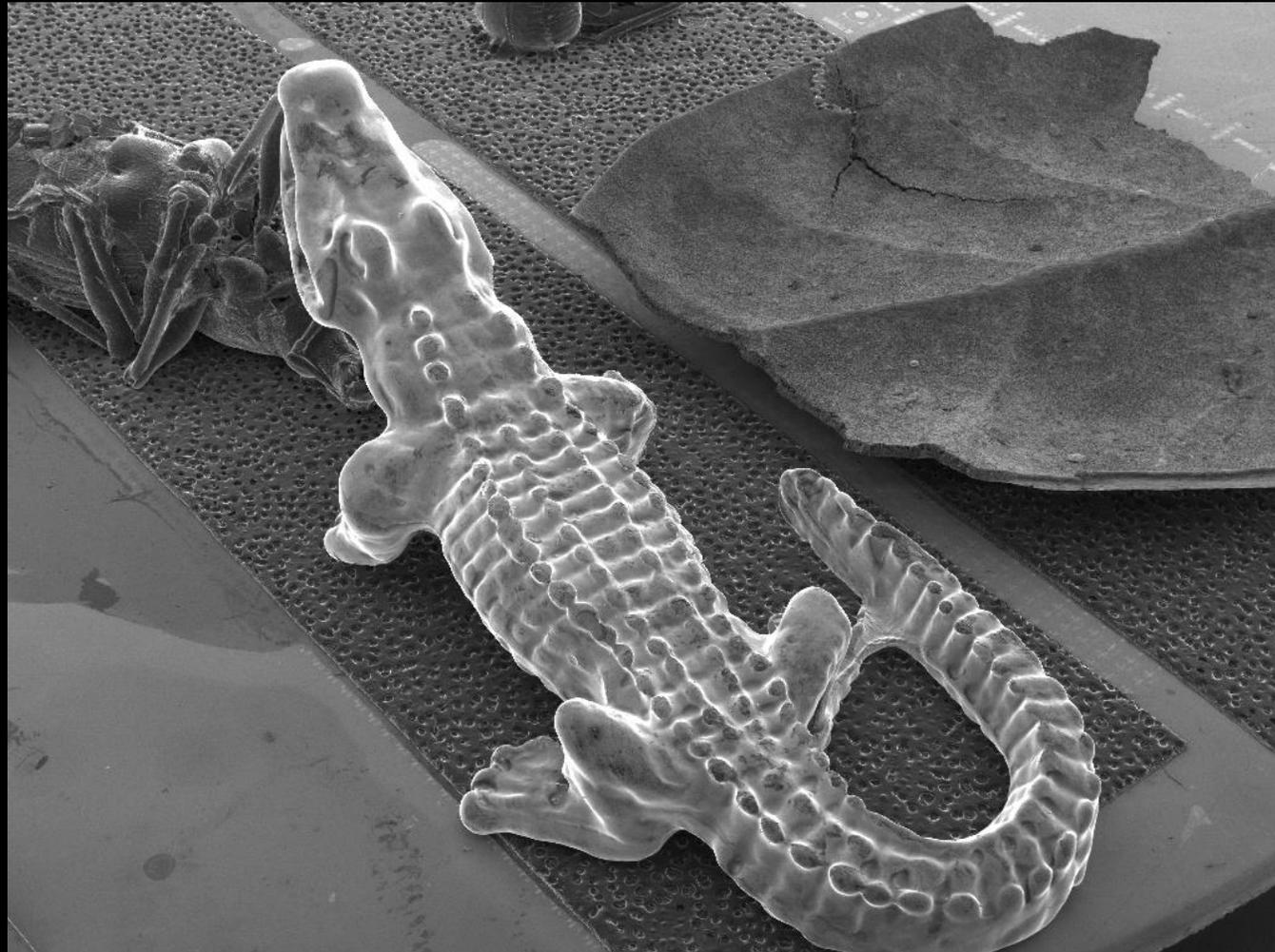
“The Pantry Pest Polymer Producer”

CT scan of a 4th instar *Plodia interpunctella* silkworm larva. Individual silk glands (blue) and salivary glands (orange) are segmented to study regions within silk gland structure relevant to silk fiber spinning.



1 mm

Lauren Eccles
Graduate Student



“Micro Gator”

Micro Gator eating a bug.

Andres Trucco
RSC Staff

SEM HV: 5.0 kV

WD: 43.56 mm

MIRA3 TESCAN

SEM MAG: 10 x

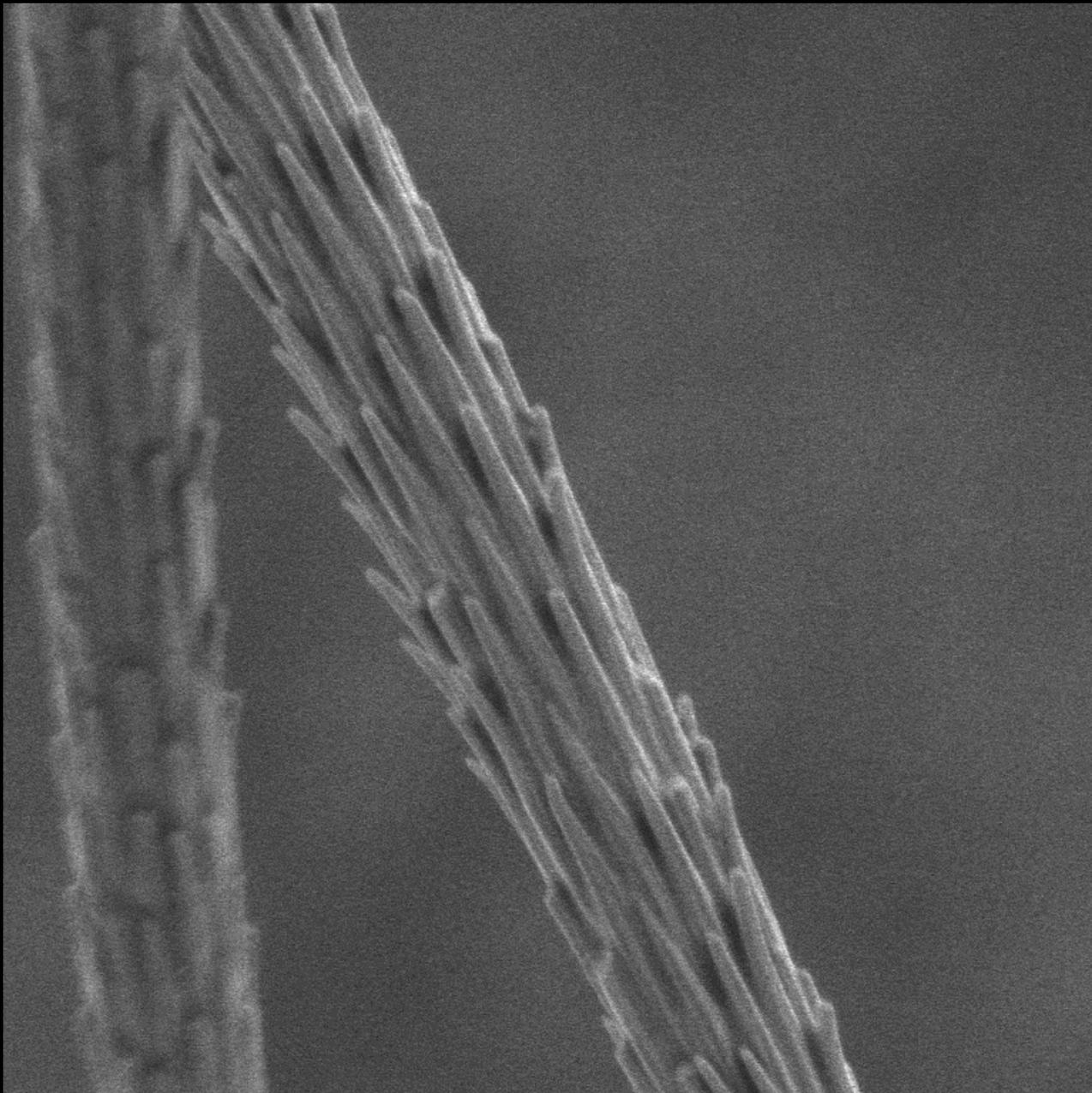
Det: SE

5 mm

View field: 26.9 mm

Date(m/d/y): 09/29/23

UF RSC



“Skinny Hairy Legs”

EVA
K-12 Student

SEM HV: 5.0 kV

WD: 30.49 mm



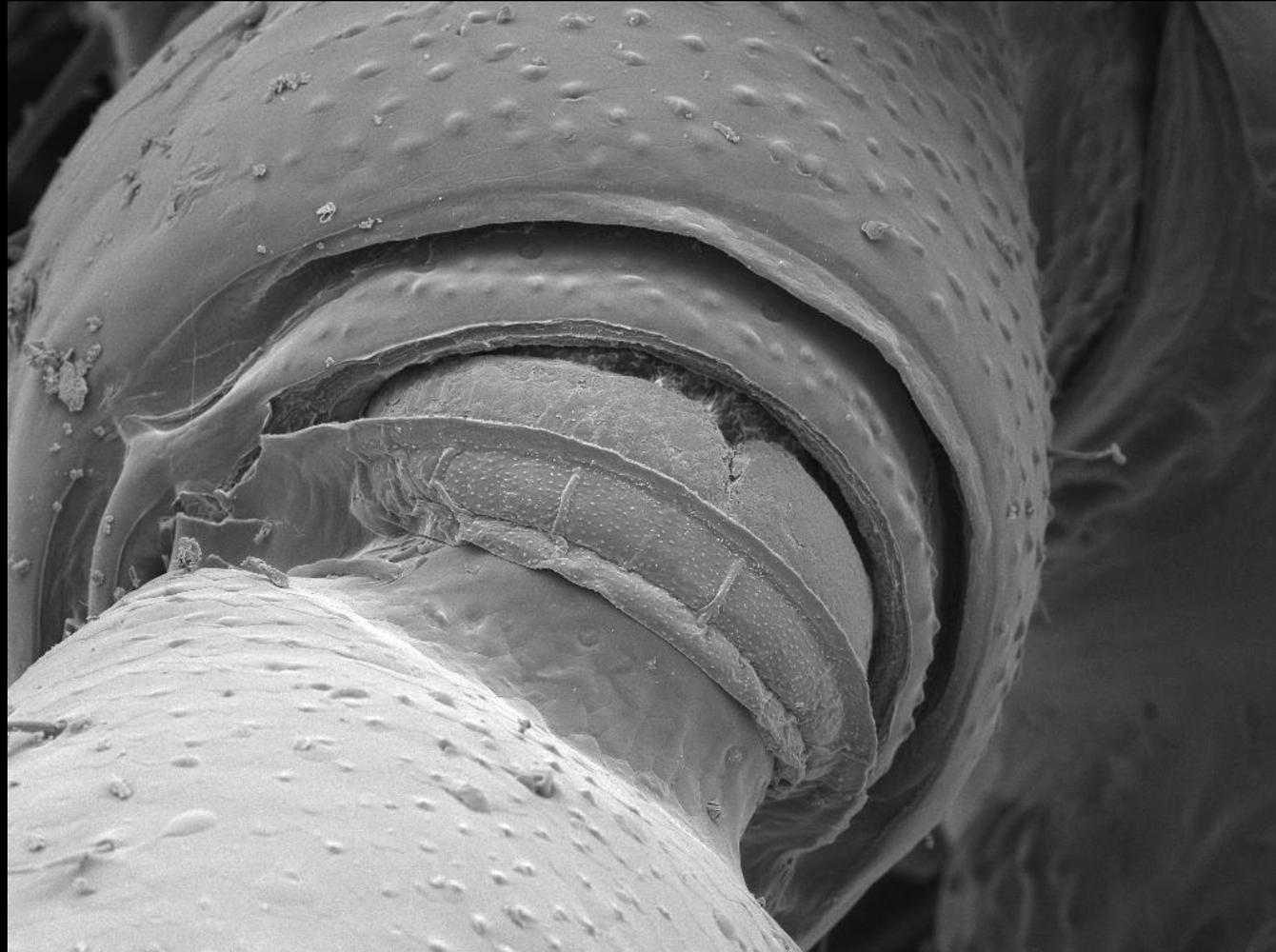
MIRA3 TESCAN

SEM MAG: 6.86 kx

Det: SE

5 μ m

UF RSC



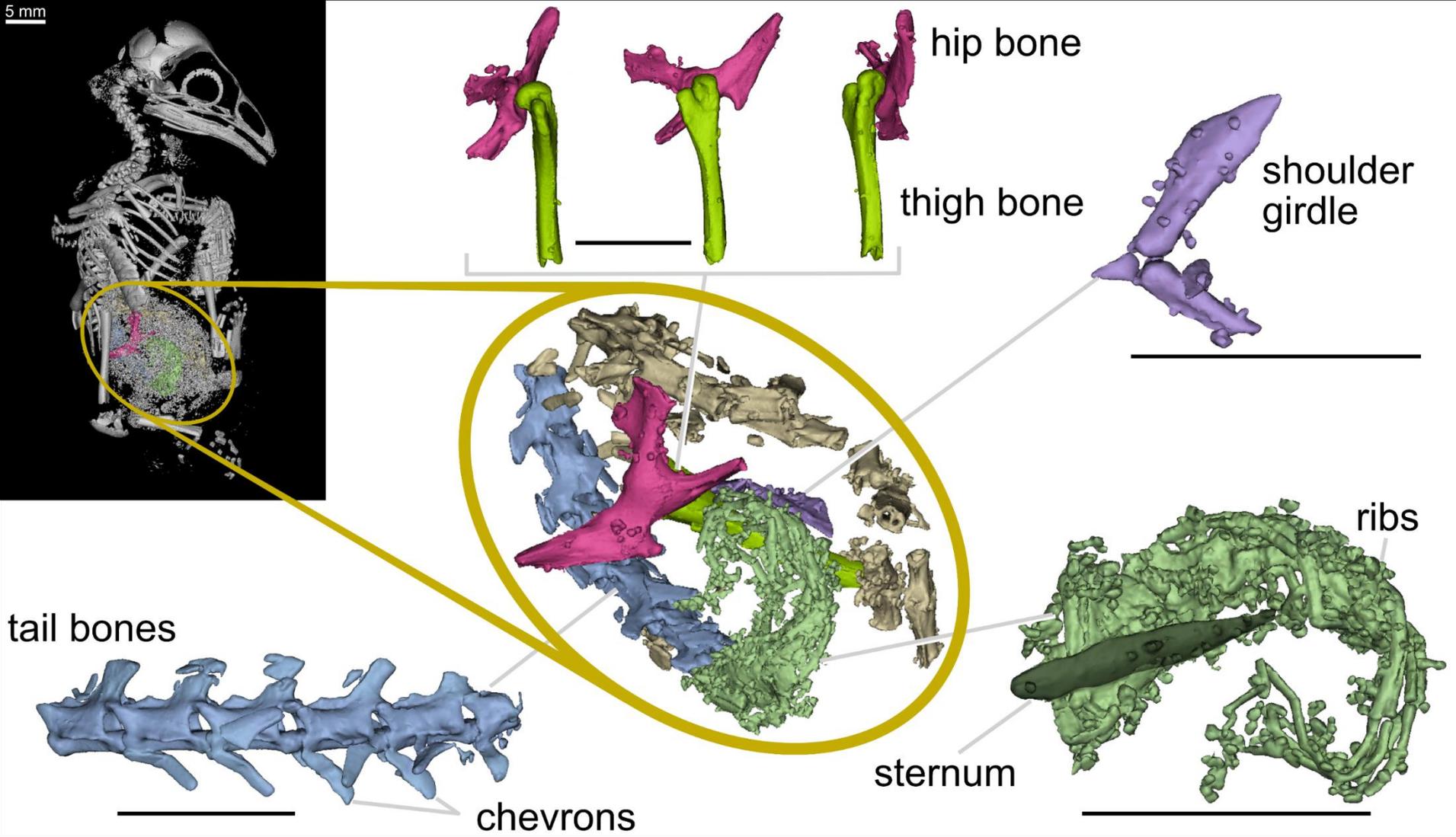
“onions have layers”

The lower joint of a bug's leg

Hunter Marton
RSC Staff

SEM HV: 5.0 kV	WD: 15.47 mm	50 μ m	MIRA3 TESCAN
SEM MAG: 1.22 kx	Det: SE		UF RSC
View field: 227 μ m	Date(m/d/y): 09/21/23		

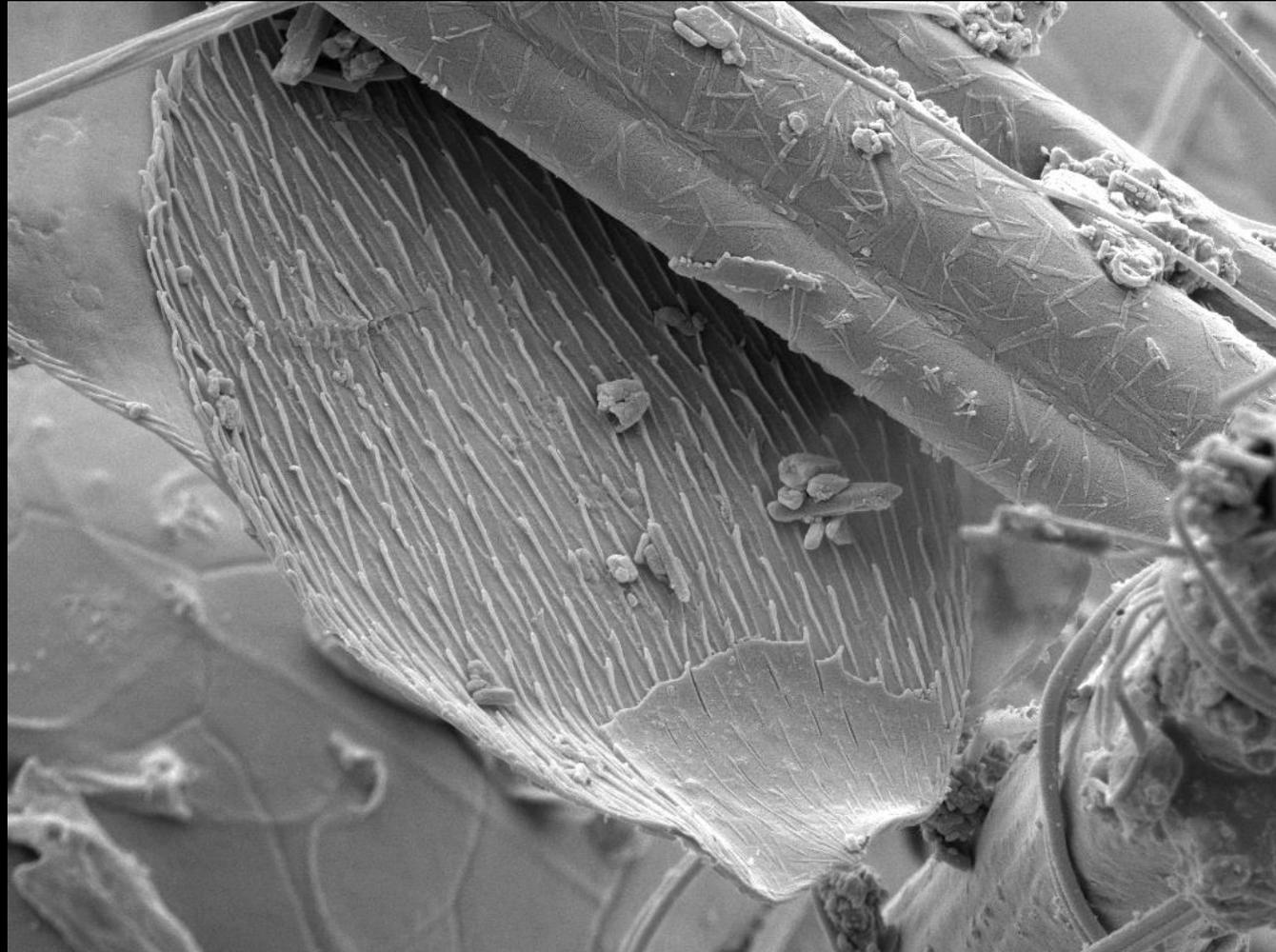
5 mm



“5-day-old bird ate a tiny lizard”

This image is derived from a CT scan of a 5-day-old loggerhead shrike (*Lanius ludovicianus*, FMNH 368617) project. Just before it died, this shrike ate a small lizard. How can we tell it's a lizard? By generating individual models of the prey's bones in the bird's crop, we can see parts of the hip, leg, shoulder, ribs... but most importantly, the tail bones. Reptiles have sticky-outy bits on the bottom sides of their tail bones called chevrons. Mammal tail bones do not have these structures. This image shows that the devoured animal's tail has chevrons, so we can conclude this baby bird ate a tiny lizard. (All black scale bars in the image are 5mm.)

Stephanie Baumgart



“Dead leaves and...”

Some sort of sensor in the shape of a leaf. It appears to be detached from the bug and might stick up if it were alive and moving around. Next to it is a fallen hair of some kind from the bug. It almost looks like a fallen tree next to a giant leaf.

SEM HV: 5.0 kV

WD: 14.78 mm

MIRA3 TESCAN

SEM MAG: 9.77 kx

Det: SE

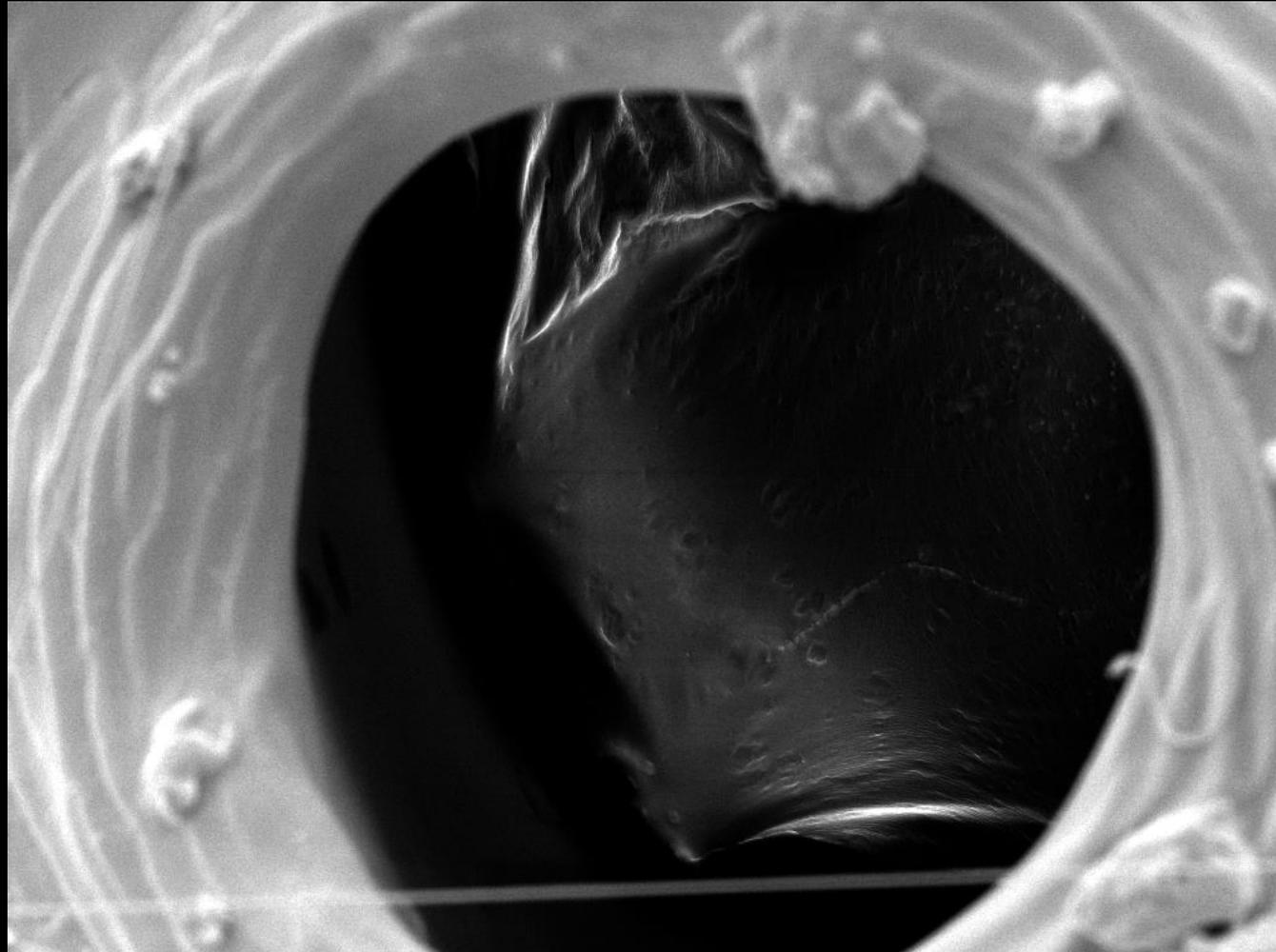
5 μ m

View field: 28.3 μ m

Date(m/d/y): 09/21/23

UF RSC

Hunter Marton
RSC Staff

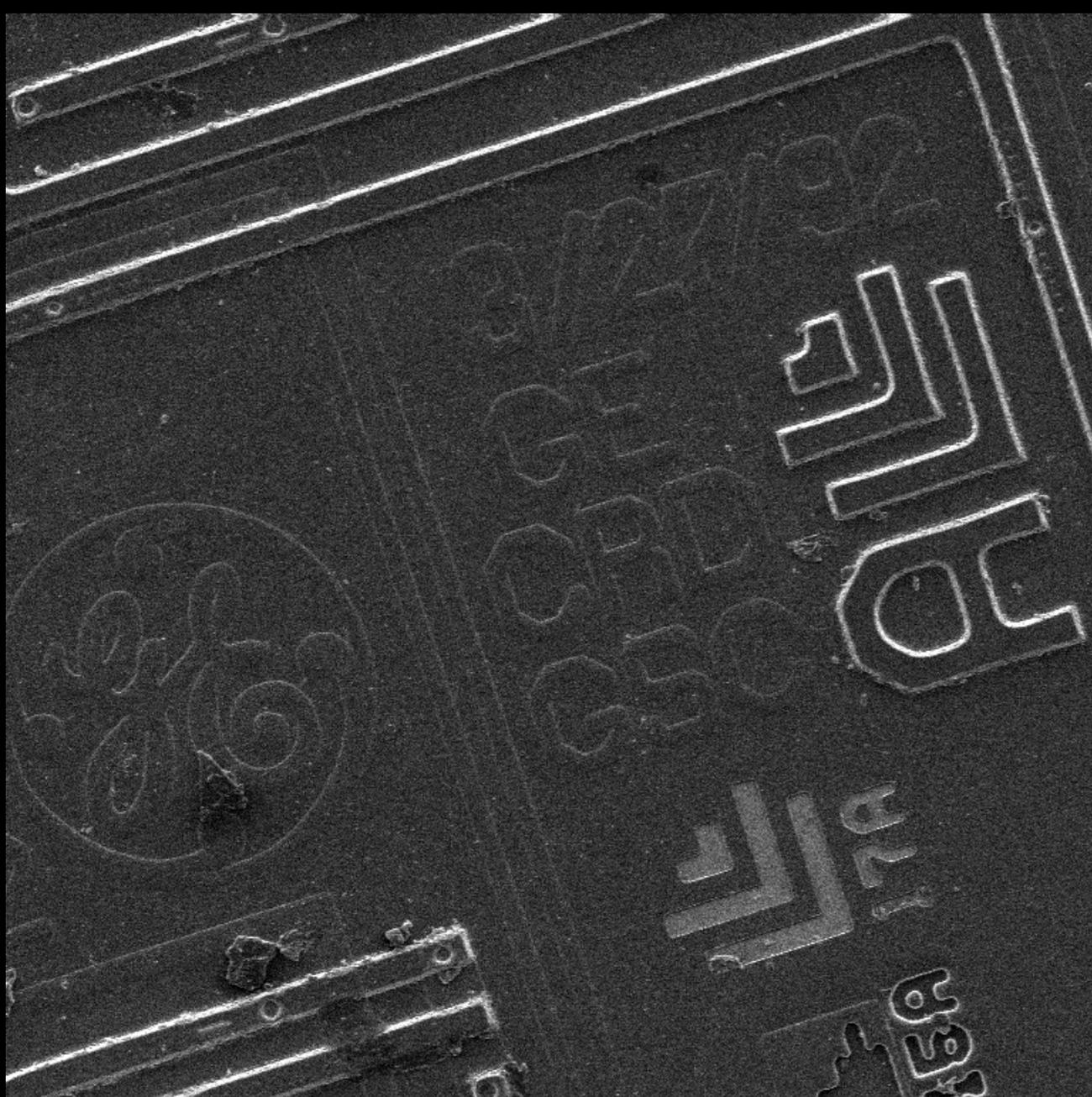


“The beating heart”

A hole that appears to have come from a hair stalk being ripped out.

SEM HV: 5.0 kV	WD: 14.89 mm	10 μ m	MIRA3 TESCAN
SEM MAG: 6.53 kx	Det: SE		UF RSC
View field: 42.4 μ m	Date(m/d/y): 09/21/23		

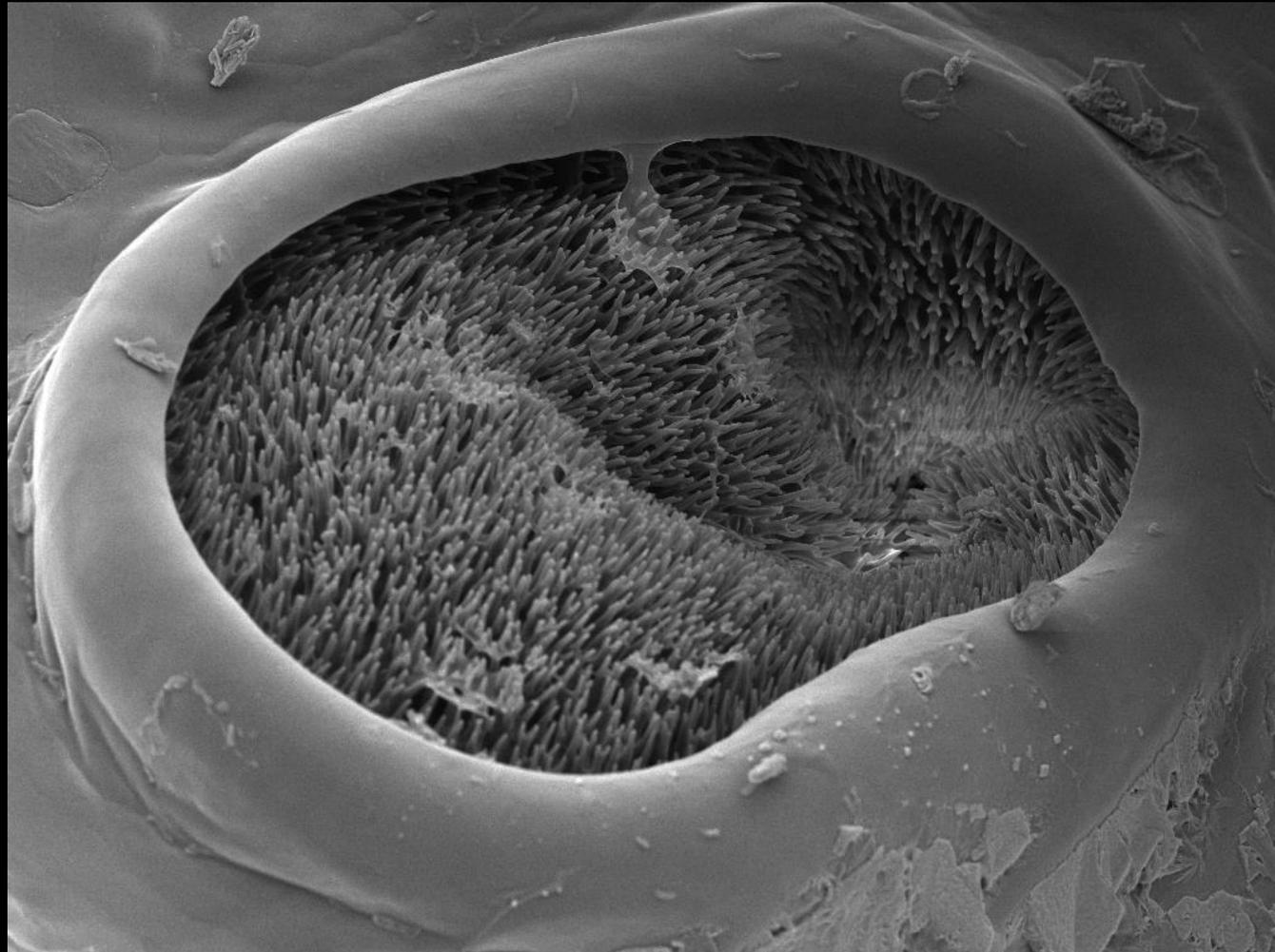
Hunter Marton
RSC Staff



“GE - 1992”

GE Logo in device dated 1992.

Eric Litt
Microscopy Fan



“Keeping It Reef”

Some sort of sensor on a bug I found. It is next to the joint where its leg is attached to its body. It looks like a coral reef

SEM HV: 5.0 kV

WD: 15.46 mm

MIRA3 TESCAN

SEM MAG: 2.83 kx

Det: SE

20 μ m

View field: 97.9 μ m

Date(m/d/y): 09/21/23

UF RSC

Hunter Marton
RSC Staff