

# 2019 CALENDAR



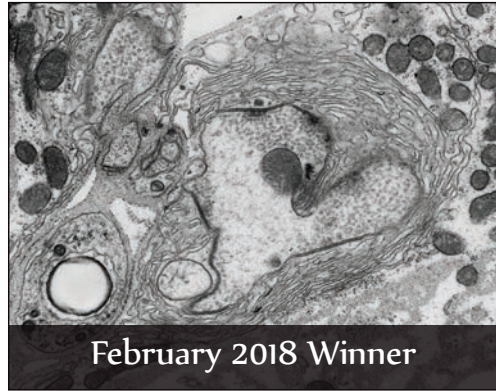
*Featuring 2018 Winning Images*







January 2018 Winner



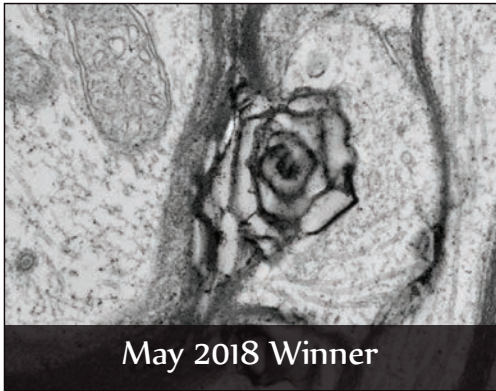
February 2018 Winner



March 2018 Winner



April 2018 Winner



May 2018 Winner



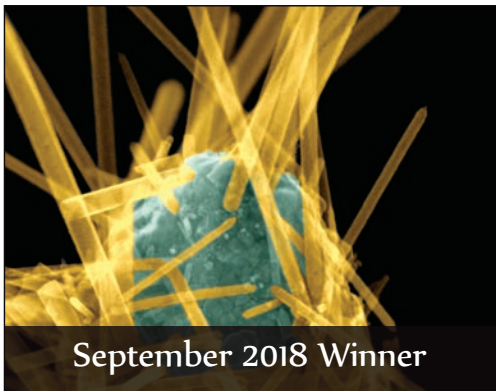
June 2018 Winner



July 2018 Winner



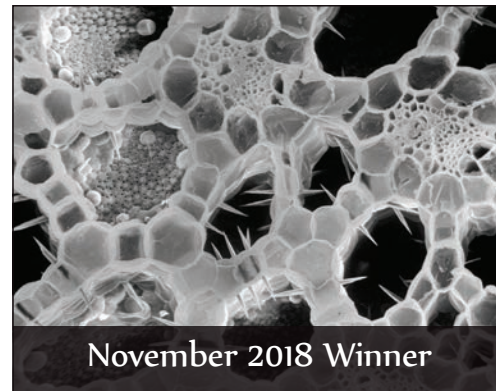
August 2018 Winner



September 2018 Winner



October 2018 Winner



November 2018 Winner



December 2018 Winner



# 2019 CALENDAR

## *Featuring 2018 Winning Images*

JEOL USA would like to thank all of our customers who submitted images to our Image Contest over the past five years – from 2014 to 2018. We have received many outstanding images that are posted in galleries on our website at [www.jeolusa.com/winners](http://www.jeolusa.com/winners).

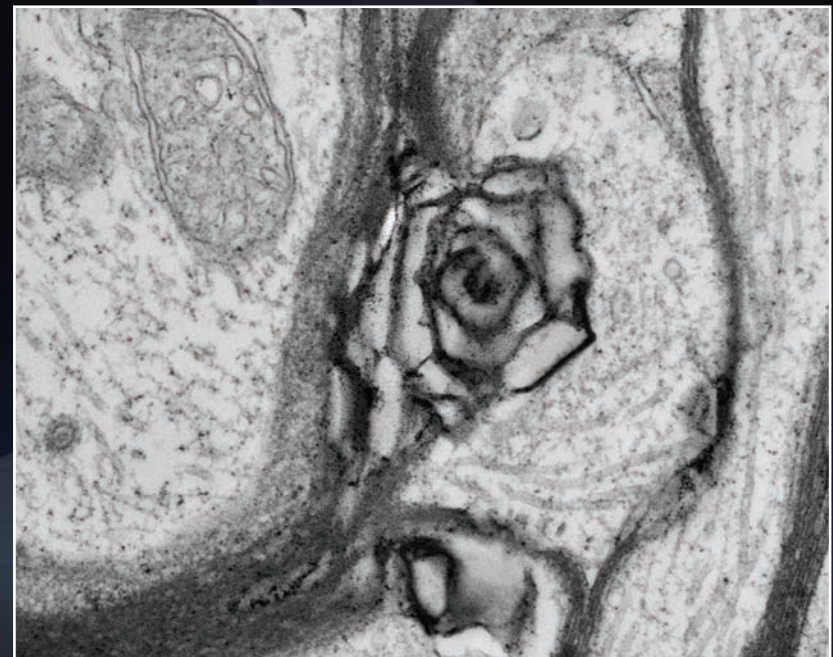
We invite all JEOL SEM, TEM, and EPMA users to enter the JEOL USA 2019 Image Contest. A prize is awarded to the owner of the winning image for each month, and the contest culminates in two Grand Prize winners announced at the end of the year. See our website for contest guidelines.



Pollen Granule

Dr. Orlando Hernández, Universidad Nacional Autónoma de México,  
ENES - Unidad Morelia - JSM-IT300 SEM

*Preparation: Dr. Francisco Balvino Olvera -  
Image processing: Biol. Daniel Ramírez Martínez*

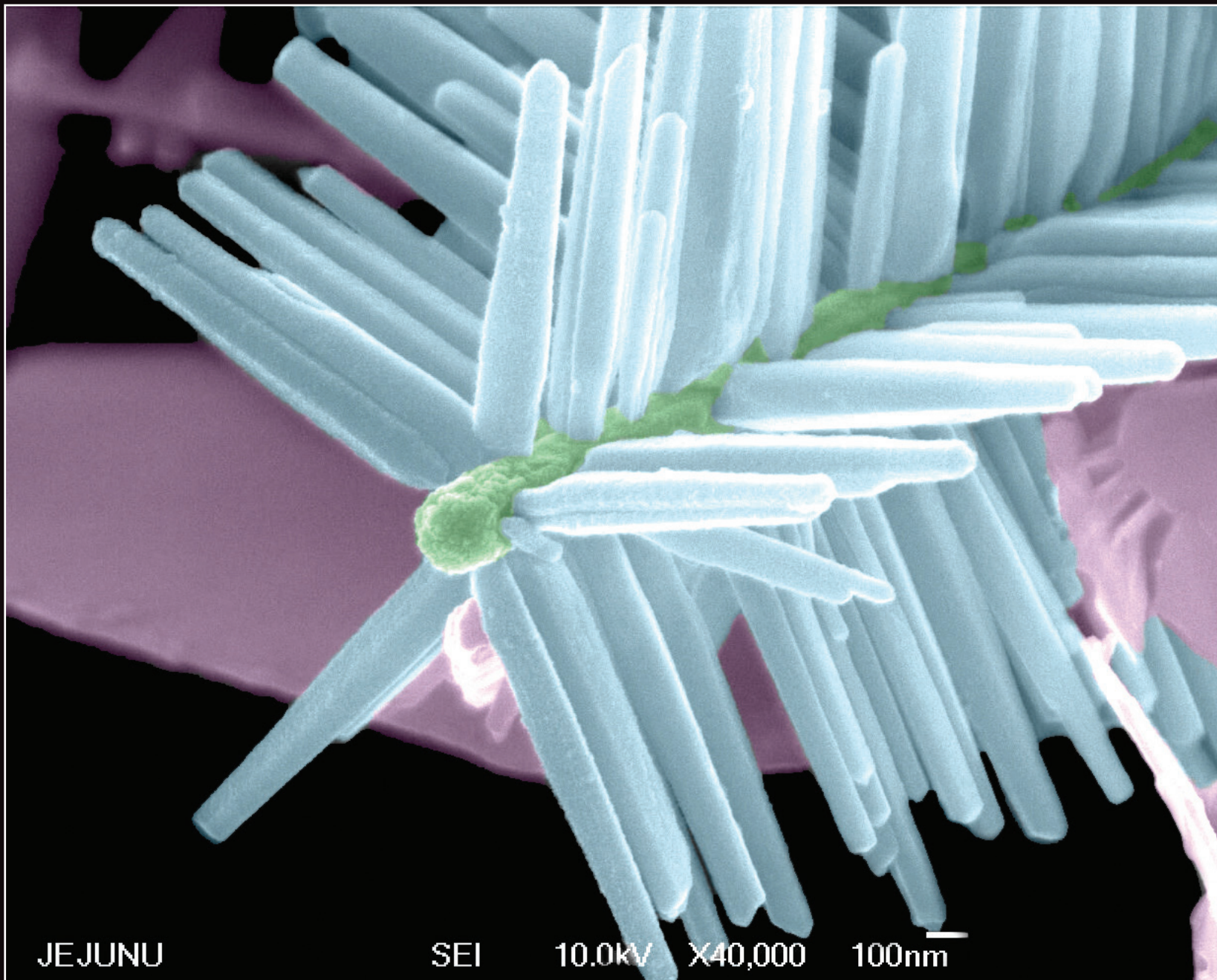


Axon Rose

Representation from genotype VPSII from drosophila brain tissue.  
Mutant axon gone awry amongst other brain cells.

*Lita Duraine - Howard Hughes Medical Institute - JEOL 1400Plus TEM*





Ag/ZnO Hierarchical Nanostructure  
Instrument: JEOL JSM-6700F Scanning Electron Microscope  
Credit: Ulugbek Shaislamov - Jeju National University

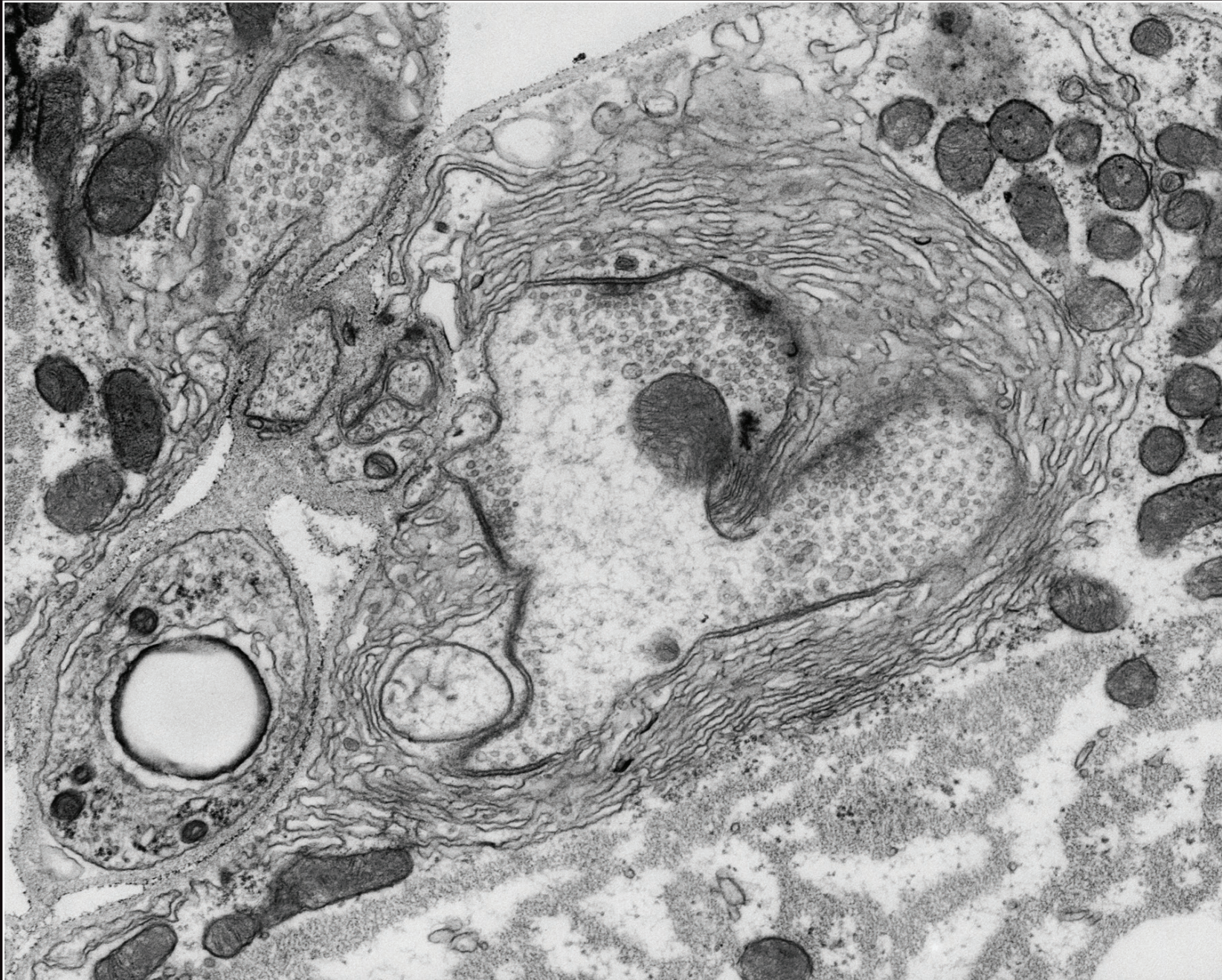




# January 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		New Year's Day 1	I-APS Inter-Amer Photochem Sarasota, FL 2	3	4	5
6	Winter School on HR EM Arizona State University 7	8	9	10	11	12
13	14	15	16	17	18	19
20	Martin Luther King, Jr. Day 21	22	23	24	25	26
27	28	29	30	31		





### Love Me, Love My Bouton

Mutant bouton synapse - representation of a genetic deficiency construct made for drosophila neuromuscular junction tissue

*Lita Duraine, Howard Hughes Medical Institute - JEOL 1400Plus TEM at 80kV*





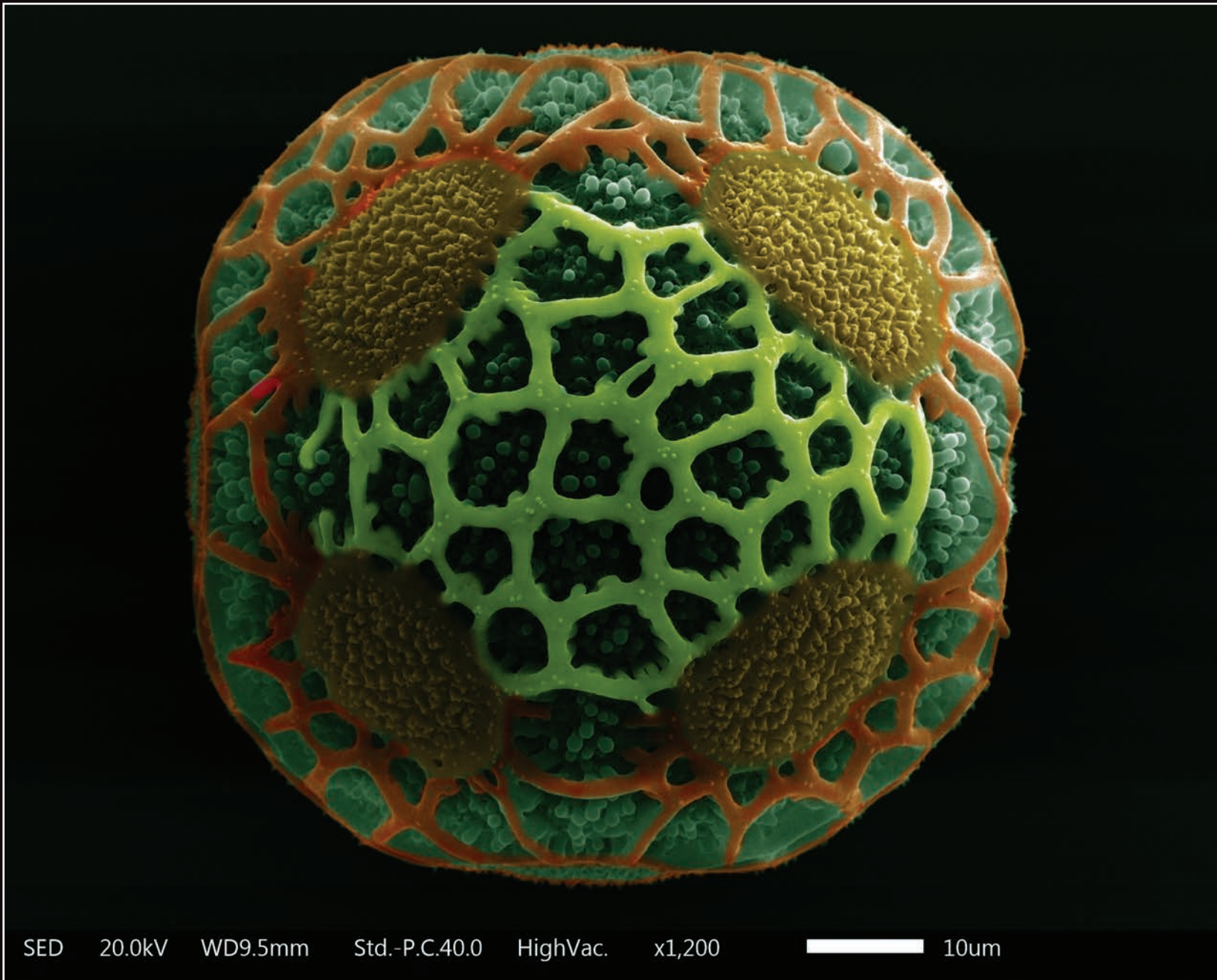
# February 2019


Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	Constitution Day Observed (Mexico) 4	Chinese New Year 5	6	7	8	9
10	11	12	13	Valentine's Day 14	15	16
17	President's Day Family Day (Canada) 18	19	20	21	22	23
24	25	Advanced Lithography San Jose, CA 26	27	28		





SEM



SED 20.0kV WD9.5mm Std.-P.C.40.0 HighVac. x1,200  10um

### Pollen Granule

Dr. Orlando Hernández, Universidad Nacional Autónoma de México, ENES - Unidad Morelia - JSM-IT300 SEM

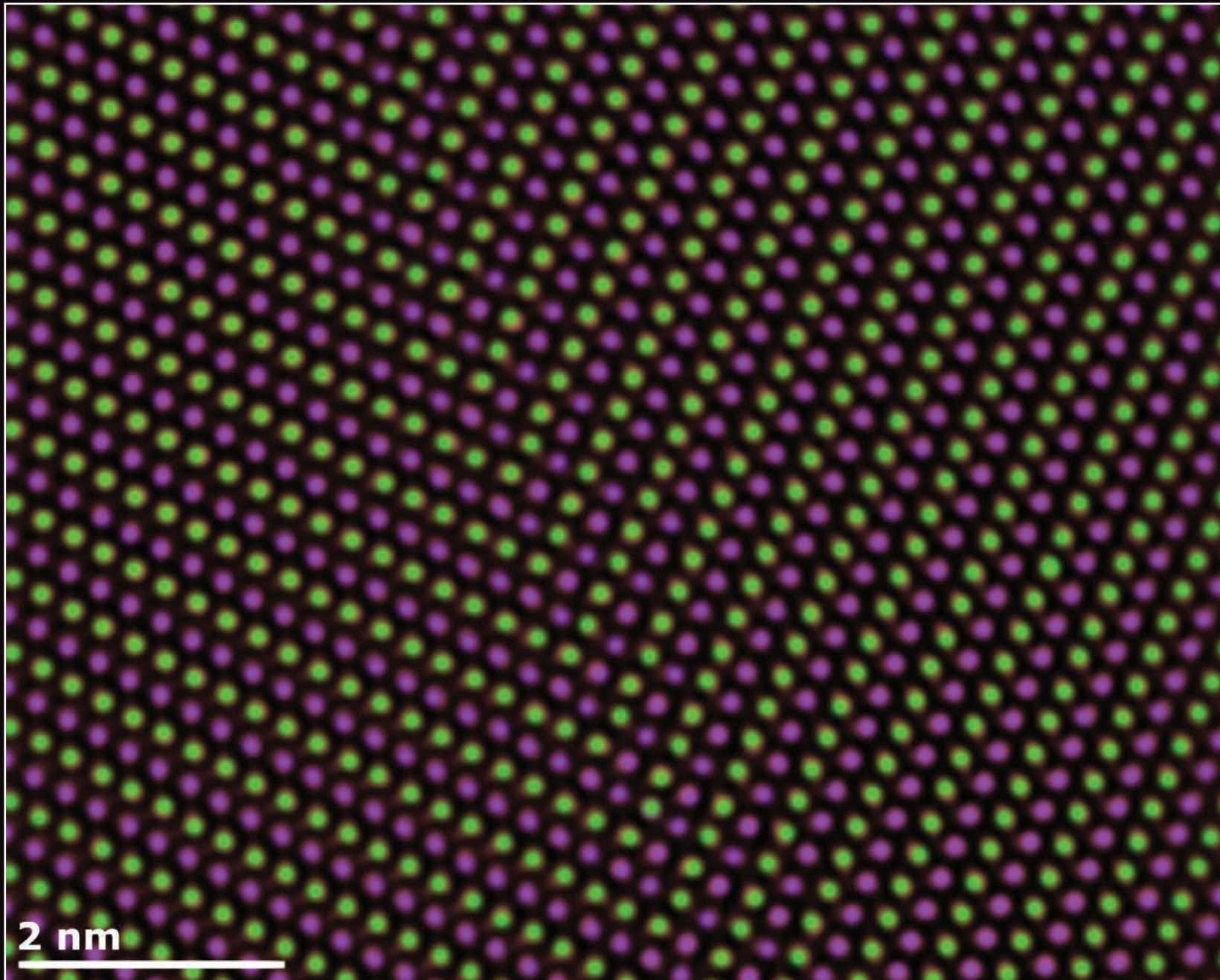
*Preparation: Dr. Francisco Balvino Olvera - Image processing: Biol. Daniel Ramírez Martínez*





# March 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	Biophysical Society Baltimore, MD 2
PANIC NMR Hilton Head, NC 3	4	5	Ash Wednesday 6	7	8	9
Daylight Savings Begins 10	11	12	13	14	15	16
St. Patrick's Day 17	18	PITTCON Philadelphia, PA 19	Spring Begins 20	21	22	23
24	25	GOMAC TECH Albuquerque, NM 26	27	28	29	30
31 ACS Spring Orlando, FL						



### Twins in Magnesium

Atomic arrangement across a twin boundary in magnesium - JEM-F200 Transmission Electron Microscope

*Lawrence Whitmore, University of Salzburg*





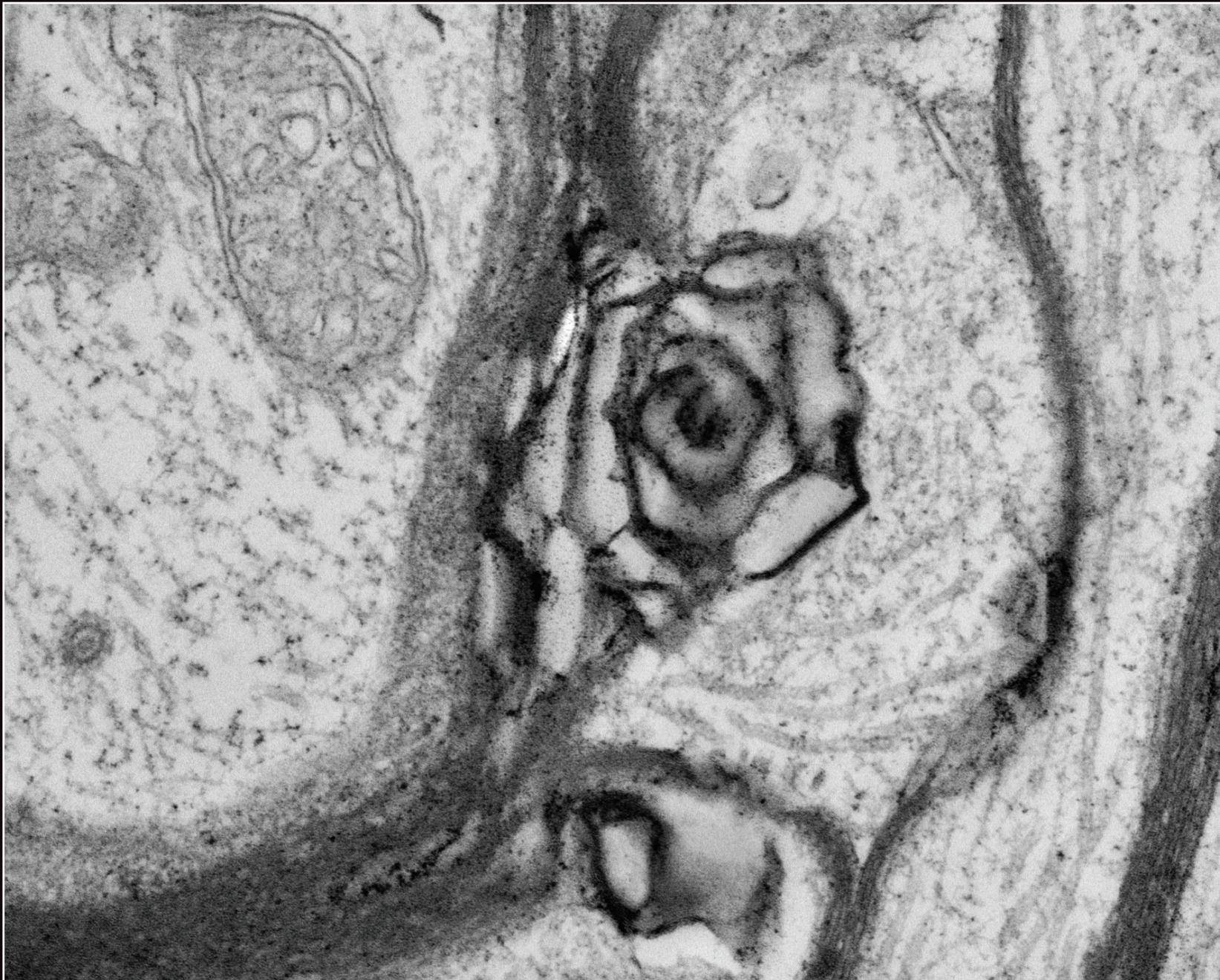
# April 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
ENC Pacific Grove, CA 7	8	9	10	11	12	13
Palm Sunday 14	15	16	17	18	Good Friday Passover Begins at Sundown 19	20
Easter 21	Easter Monday (Canada) Earth Day 22	23	24	25	NESM Woods Hole, MA 26	27
Orthodox Easter 28	Ceramics Expo Cleveland, OH CS Mantech Minneapolis, MN 29	30				





TEM



### Axon Rose

Representation from genotype *VPS11* from *drosophila* brain tissue. Mutant axon gone awry amongst other brain cells.

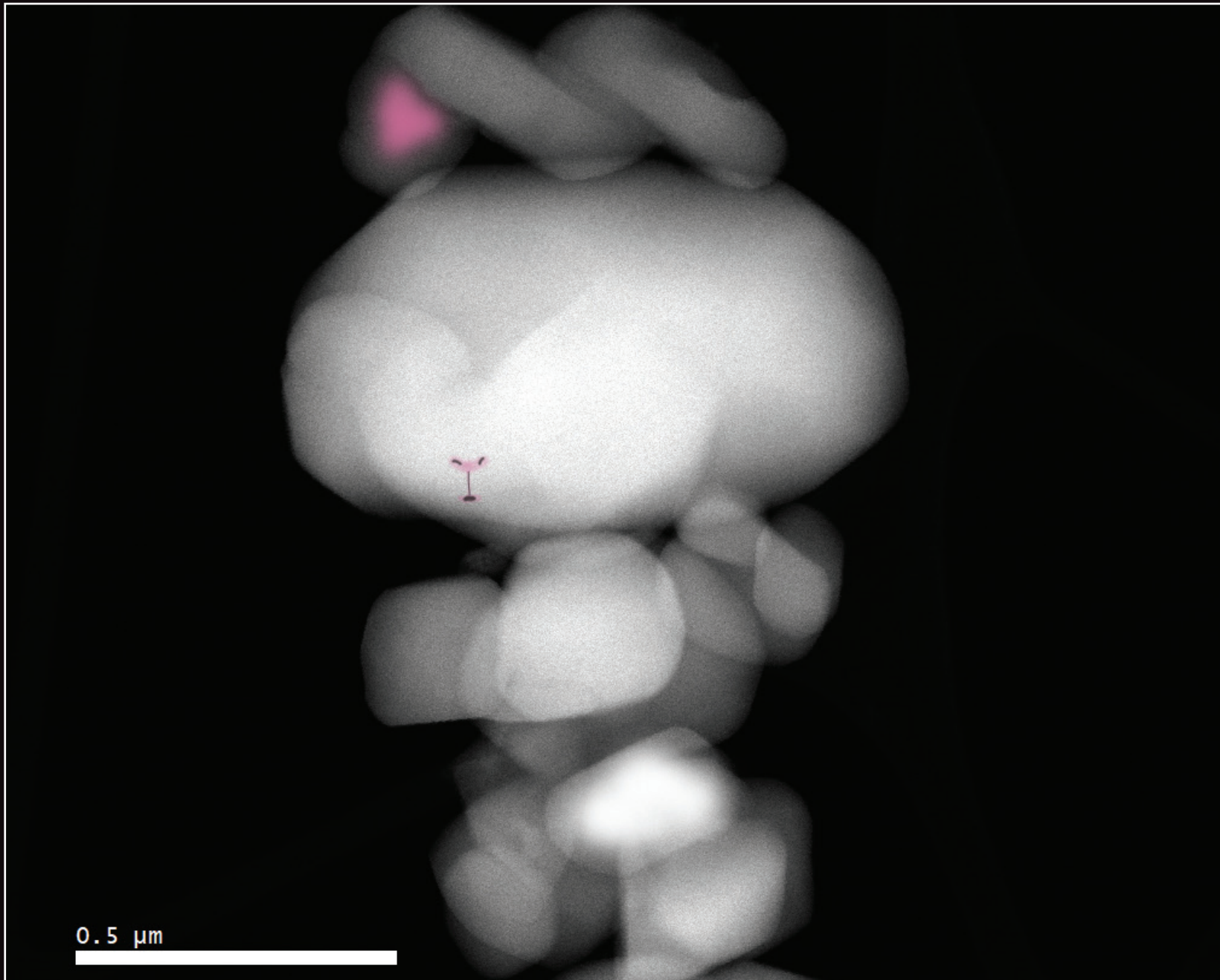
*Lita Duraine - Howard Hughes Medical Institute - JEOL 1400Plus TEM*





# May 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			May Day Labor Day (Mexico) 1	2	3	4
Cinco de Mayo Battle of Puebla Day (Mexico)  Ramadan Begins at Sundown 5	6	7	MAAFS Morgantown, WV 8	9	10	11
Mother's Day 12	GC x GC Ft. Worth, TX 13	14	SEMS Chattanooga, TN 15	16	17	18
19	Victoria Day (Canada) 20	21	22	23	24	25
26	Memorial Day 27	EIPBN Minneapolis, MN 28	29	30	31	



### A Walking Rabbit

Lithium metal oxide nanoparticles used as battery cathode placed on a lacey carbon grid.

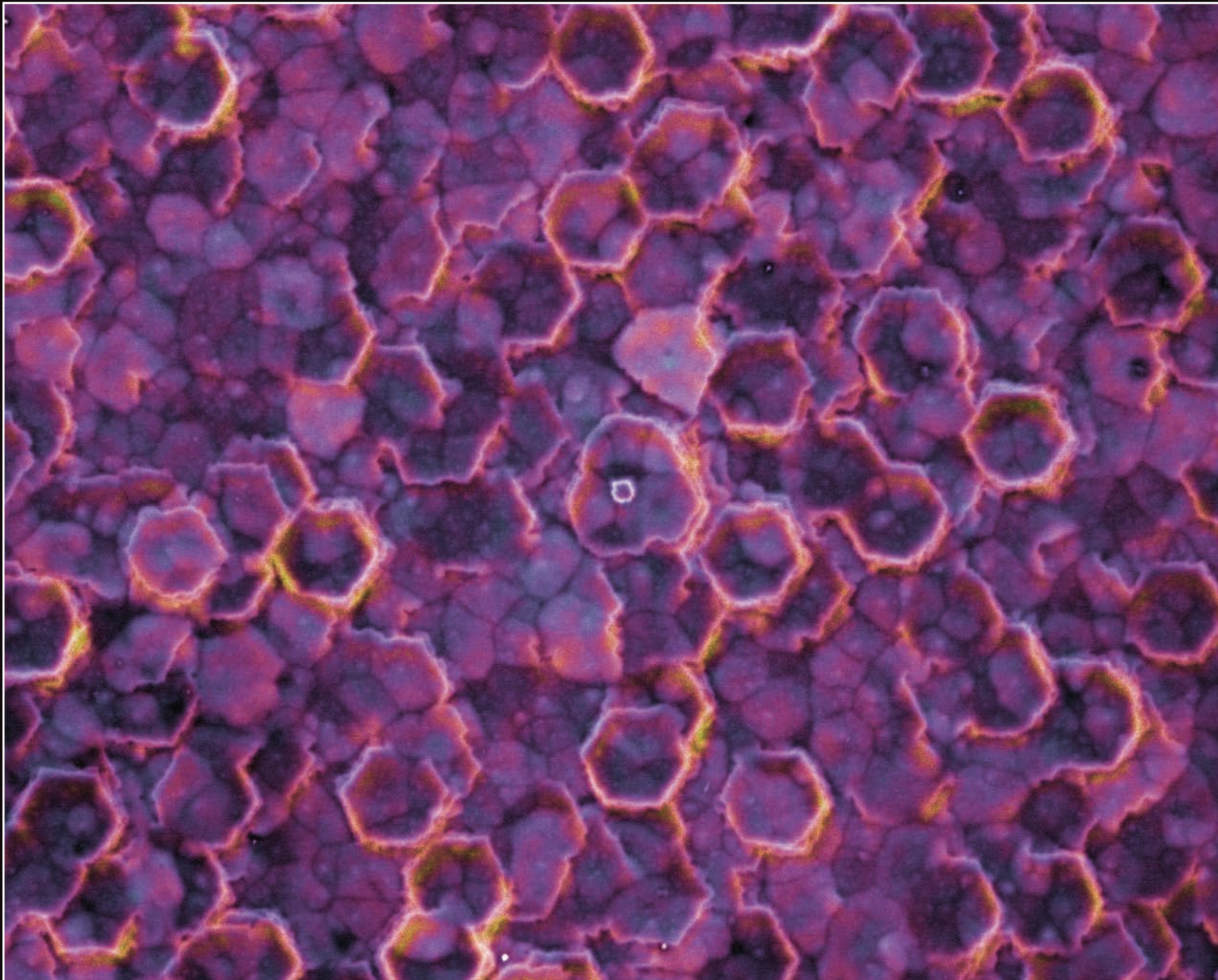
*Cong Su, MIT (Bell Lab - Harvard University ARM200F STEM)*





# June 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday		
						1		
ASMS Atlanta, GA Lehigh Microscopy School Bethlehem, PA	2	3	4	5	6	7	8	
9	10	11	12	13	Flag Day	14	15	
Father's Day NORM Portland, OR	16	17	18	19	20	Summer Begins	21	22
23	St. Jean Baptiste Day (Que.)  Quantitative Microanalysis Minneapolis, MN	24	25	26	27	28	29	
30								



### Ultraviolet Lace

Surface morphology of a group III-nitride wide bandgap AlGa<sub>N</sub> semiconductor material. Overlay of backscattered electron image (showing topography) and cathodoluminescence image (revealing the light emission properties).

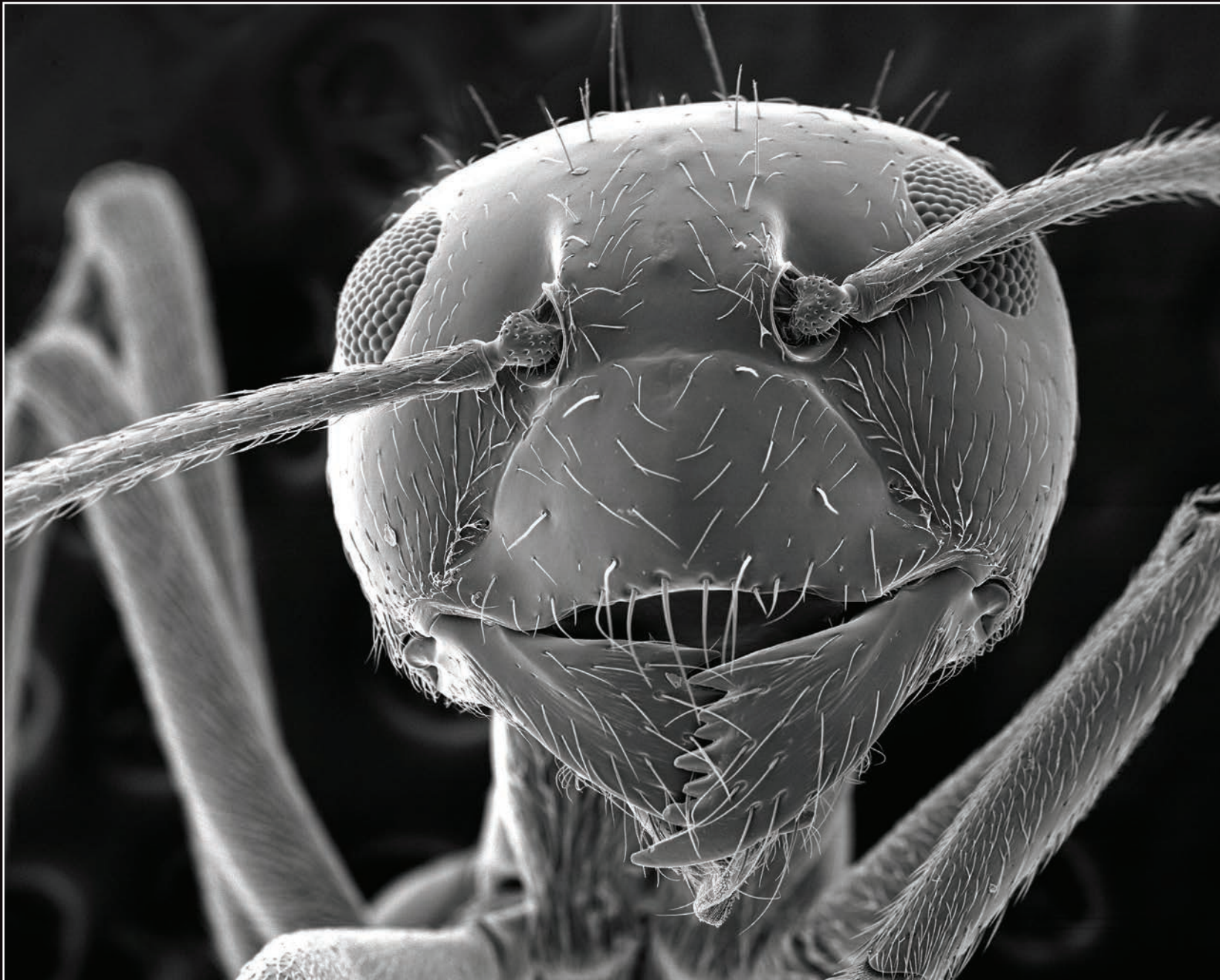
*Lucia Spasevski, University of Strathclyde - JXA-8530F EPMA*





# July 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	Canada Day (Canada) 1	2	3	Independence Day 4	5	6
7	8	SEMICON West San Francisco, CA 9	10	11	12	ASP Madison, WI 13
14	15	16	17	18	19	Phytochemical Society of North America Johnson City, TN 20
21	22	23	24	25	26	27
28	29	30	31			



"Hi There!"

Ant head - JEOL JSM-6010 LV

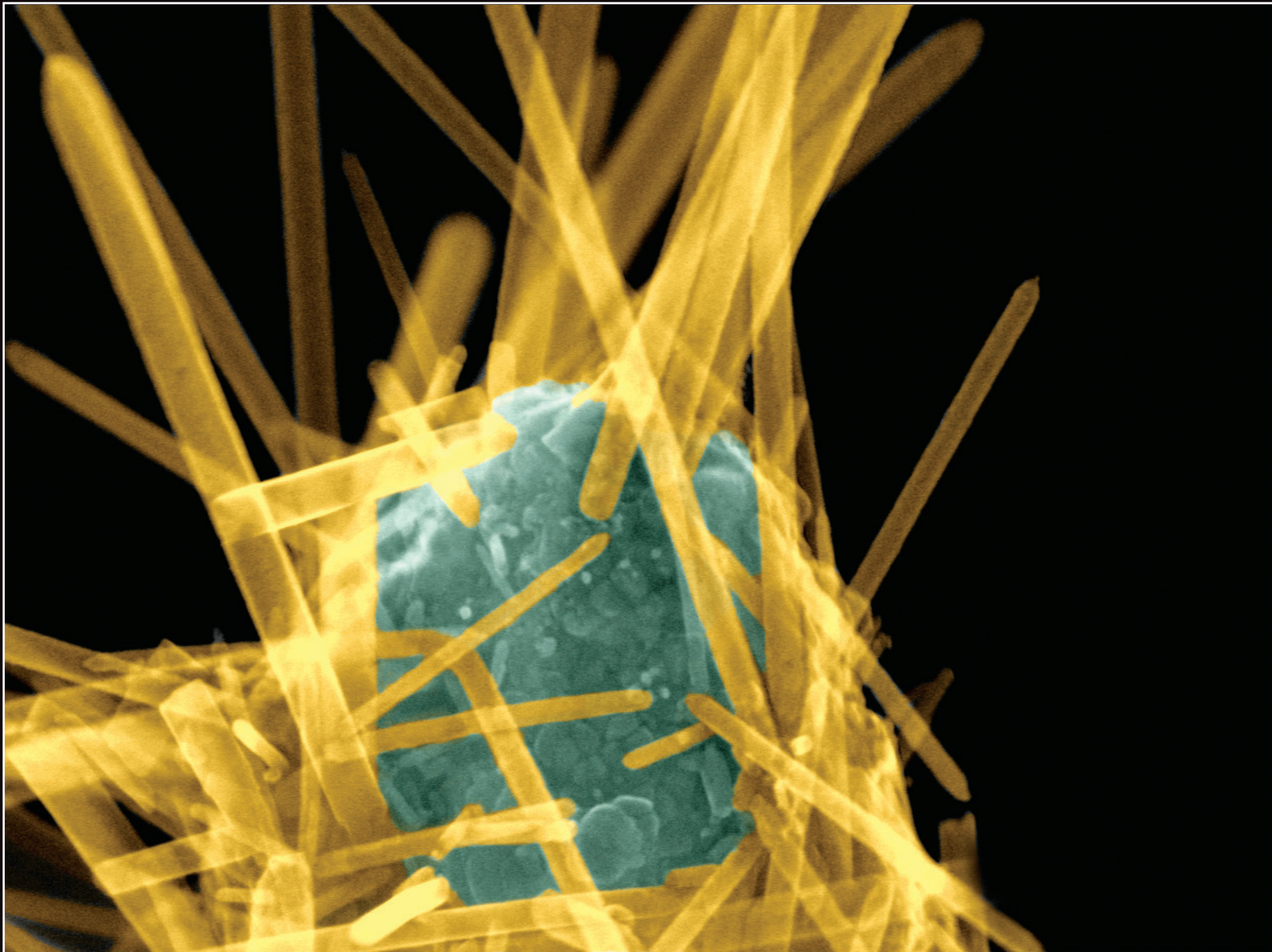
*Stefan Eberhard, Complex Carbohydrate Research Center - University of Georgia*





# August 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
				1	2	3	
4	Civic Holiday (Canada) Microscopy & Microanalysis Portland, OR	5	6	7	8	9	10
11	12	13	14	15	16	17	
18	19	20	21	22	23	24	
ACS Fall San Diego, CA	25	26	27	28	29	30	31



### Nano Fireball

ZnO nanorods grown on the CuO nanosphere - JSM-2100F TEM

*Ulugbek Shaislamov, Jeju National University*





# September 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	Labor Day 2	3	Cannabis (CSC) West Portland, OR 4	5	6	7
8	9	10	11	CFN Annual Meeting Cornell - Ithaca, NY 12	13	14
15	Independence Day (Mexico) 16	17	18	19	20	21
22	Autumn Begins 23	24	25	26	27	28
Rosh Hoshanah Begins at Sundown 29	30					



### Wildlife of MXenes

2D transition metal carbides and nitrides (MXenes). Ti<sub>2</sub>N MXene particles resemble a nanoscale underwater world.

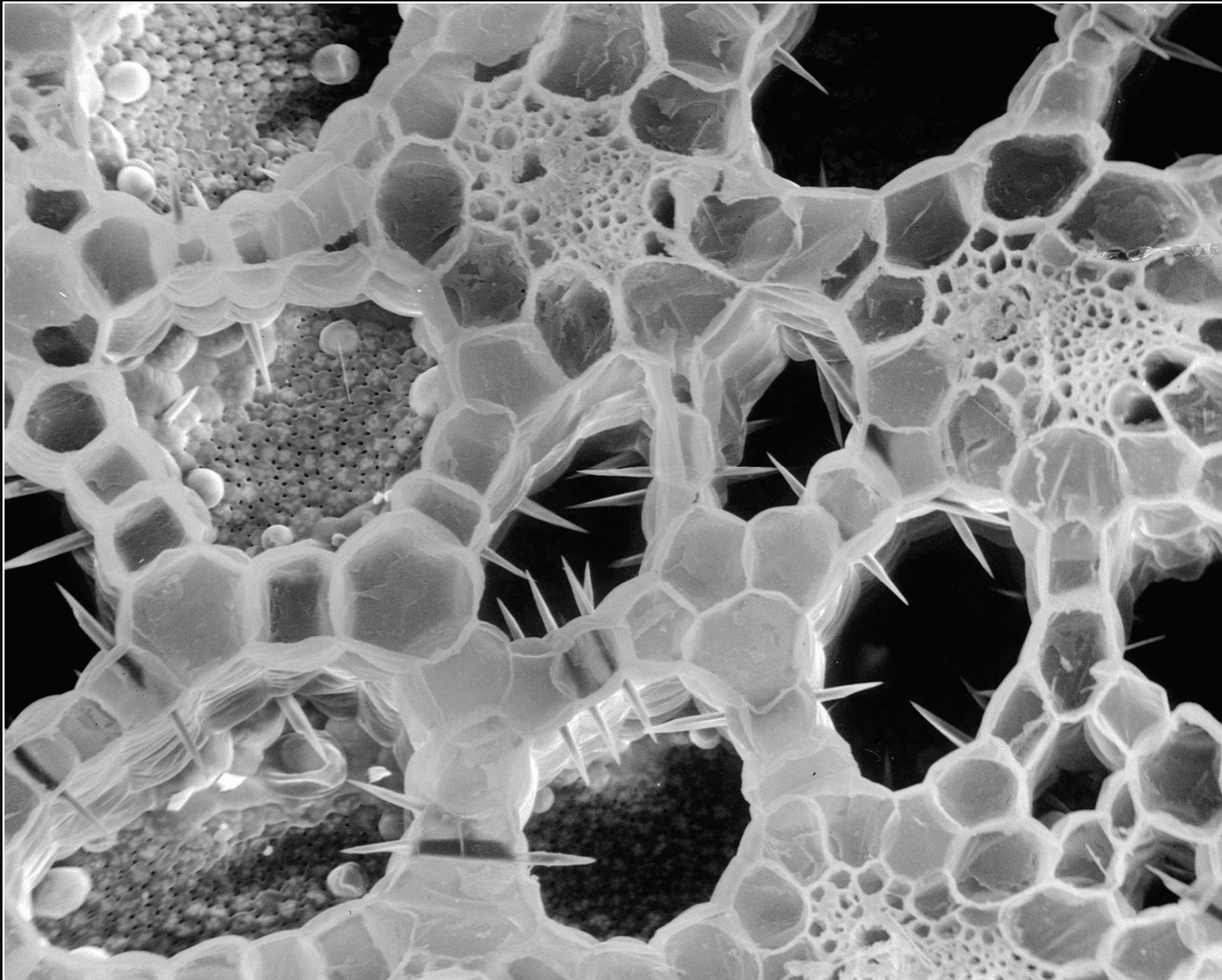
*Armin VahidMohammadi - Auburn University - JSM-7000F SEM*





# October 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		Materials Sci & Tech MS&T Portland, OR 1	2	3	4	5
6	7	Yom Kippur Begins at Sundown 8	9	10	11	12
SOFT San Antonio, TX 13	Columbus Day Thanksgiving (Canada) 14	Gulf Coast Conference Galveston, TX 15	16	17	18	19
SERMACS Savannah, GA 20	21	22	23	24	25	26
27	28	29	30	Halloween 31		



### Inside a Crystalline Labyrinth

Looking inside the petiole of water hyacinth (*Eichornia crassipes*) at the beautiful partitioned airspace canals and their surrounding cellular connective tissue with protruding calcium oxalate styloids.

*Harry (Jack) Horner, Iowa State University - JSM-5800 SEM at 15 kV*

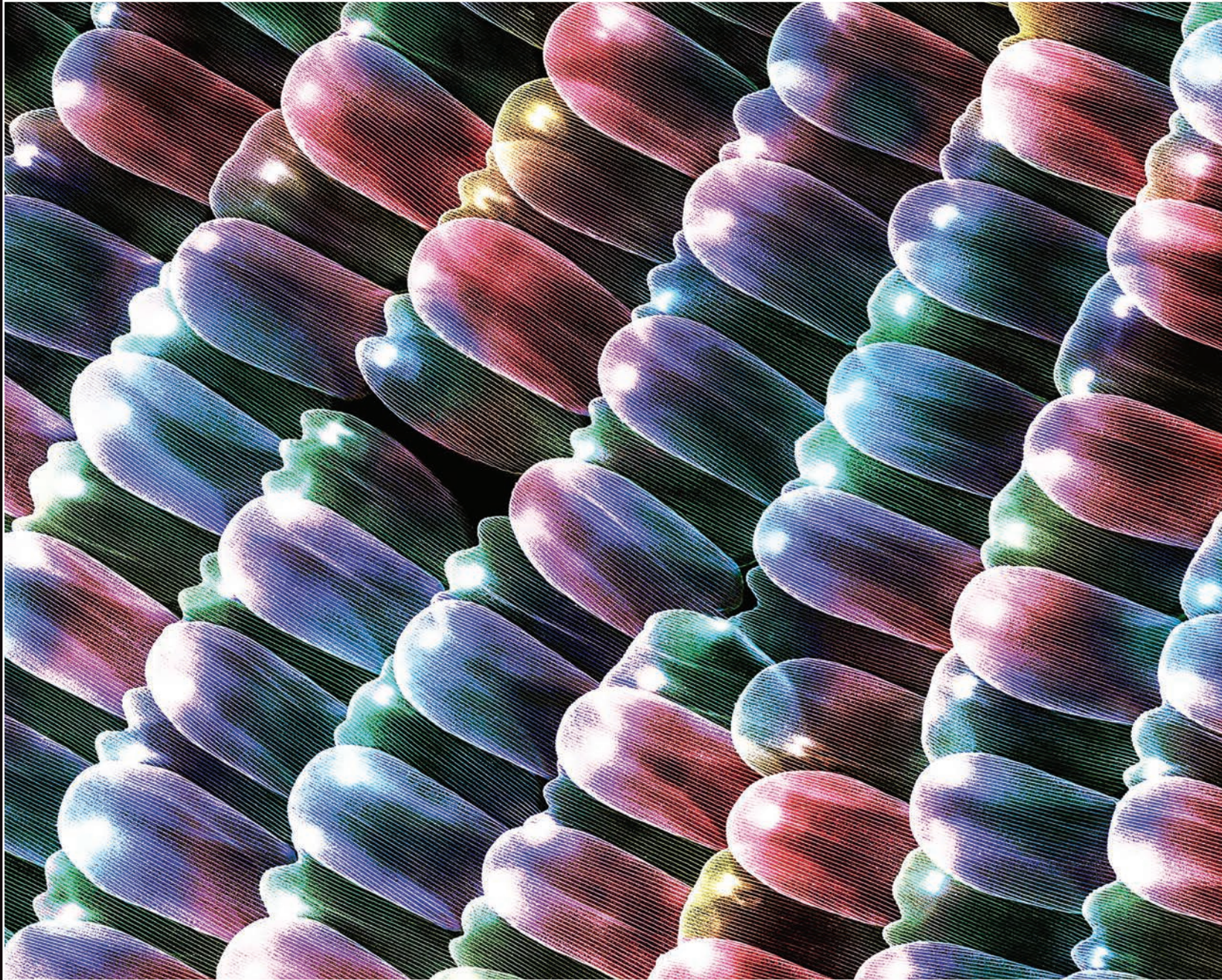




# November 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
Daylight Savings Ends 3	AAPS San Antonio, TX 4	5	6	7	8	9
10	Veteran's Day Remembrance Day (Canada) 11	ISTFA Portland, OR 12	SWRM/RMRM El Paso, TX 13	NEAFS Lancaster, PA 14	15	16
17	EAS Plainsboro, NJ 18	19	20	21	22	23
24	25	26	27	Thanksgiving 28	29	30





### Monarch Butterfly's Wing Segment

Panoramic stitching is used with a 4\*3 source image array. Each elliptical "bud" approx. 80 micrometers long.

*Yiheng Chen, The Haverford School (Pre-K – 12 preparatory boy's school) - NeoScope Benchtop SEM*





# December 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	MRS Fall Boston, MA 3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	Winter Begins 21
Hanukkah Begins at Sundown 22	23	24	Christmas 25	Boxing Day (Canada) Kwanzaa Begins 26	27	28
29	30	New Year's Eve 31				



Visit [www.jeolusa.com/winners](http://www.jeolusa.com/winners) to see all the images submitted for the JEOL Image Contest or to submit your own.  
See our most current schedule of events on our website.

[www.jeolusa.com](http://www.jeolusa.com)