

2016 Calendar

Image Contest



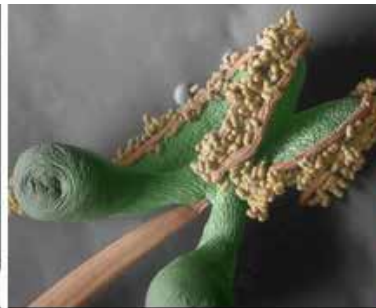
Winner

Featuring 2015 Winning Images

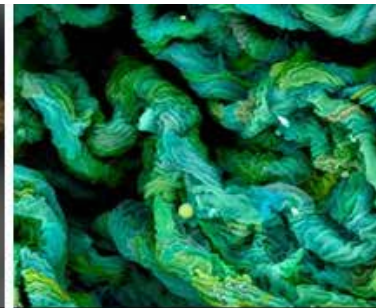




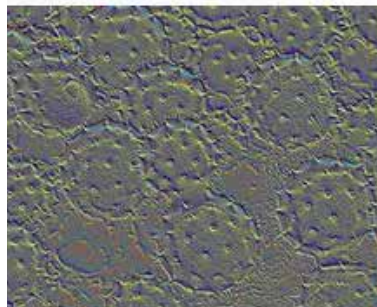
January 2015 Winner



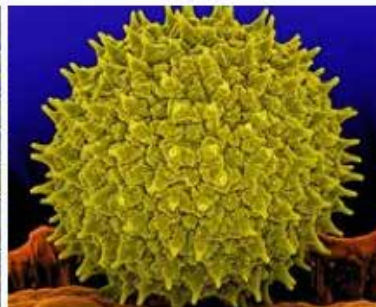
February 2015 Winner



March 2015 Winner



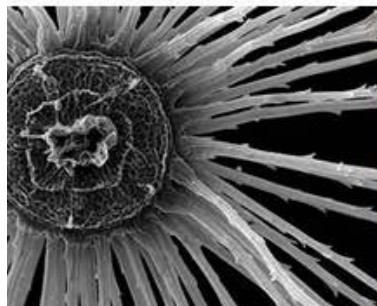
April 2015 Winner



May 2015 Winner



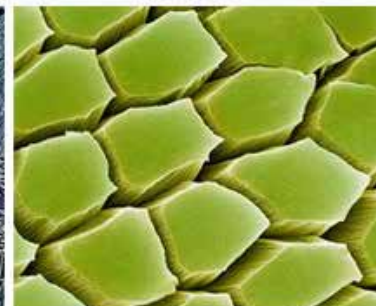
June 2015 Winner



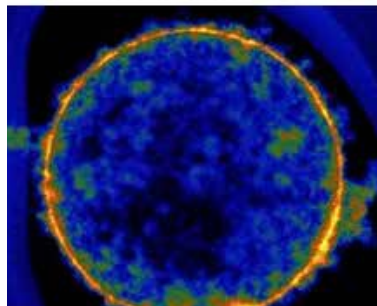
July 2015 Winner



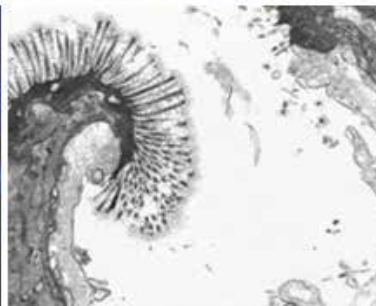
August 2015 Winner



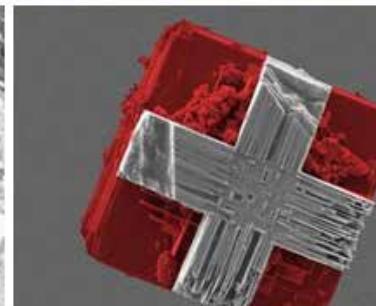
September 2015 Winner



October 2015 Winner



November 2015 Winner



December 2015 Winner



2016 Calendar

2016 — Celebrating the 50th anniversary of the first JEOL Scanning Electron Microscope

JEOL USA would like to thank all our customers who have submitted images to our 2015 and 2014 Image Contests. We received many outstanding images and have posted them all on our website at www.jeolusa.com/winners.

We invite our customers to enter the JEOL USA 2016 image contest. A prize will be awarded for each month, with a Grand Prize TEM and SEM image announced at the end of the year.

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"Plenty of Room"

FIU logo engraved on a hair strand to demonstrate the capability of a dual beam FIB instrument to a group of visitors.

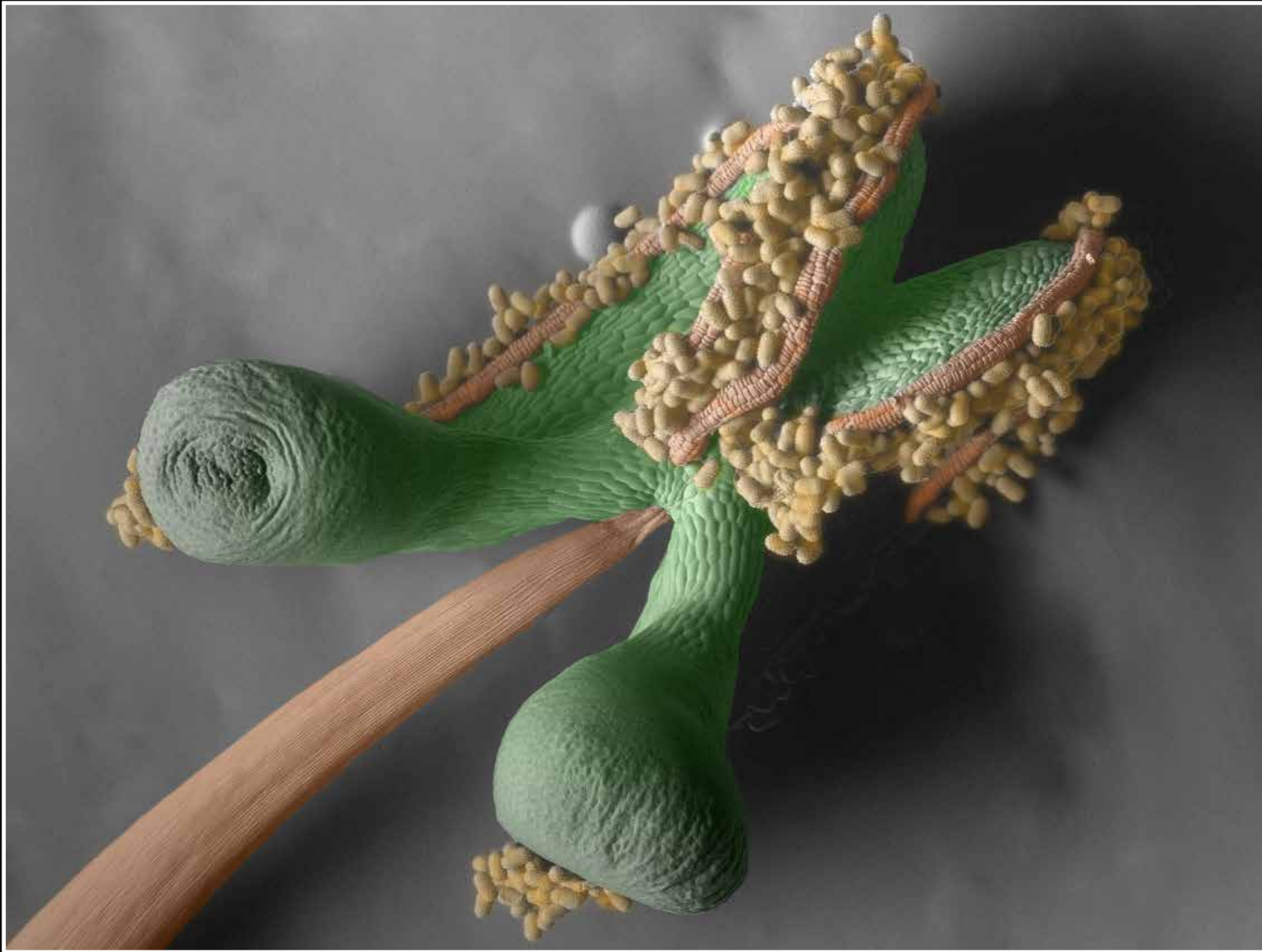
Ali Hadjikhani, AMERI / FIU (Advanced Materials Engineering Research Institute at Florida International University)

FIB milling / JEOL JIB-4500 Dual Beam FIB



January

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
 Sapphire/5 nm Ni thin film; Zhe Guan University North Carolina at Charlotte					New Year's Day 1	2	
3	4	Multidimensional Chromatography Workshop 1/5-1/6	5	6	7	8	9
10	MMM Intermag Joint Conference 1/11-1/16 6th Annual Summer School (Brazil) 1/11-1/29	11	12	13	14	15	16
17	Martin Luther King, Jr. Day	18	19	20	21	22	23
24	25	26	27	28	29	30	31



GRAND PRIZE SEM IMAGE

Anther of *Commelina Erecta*

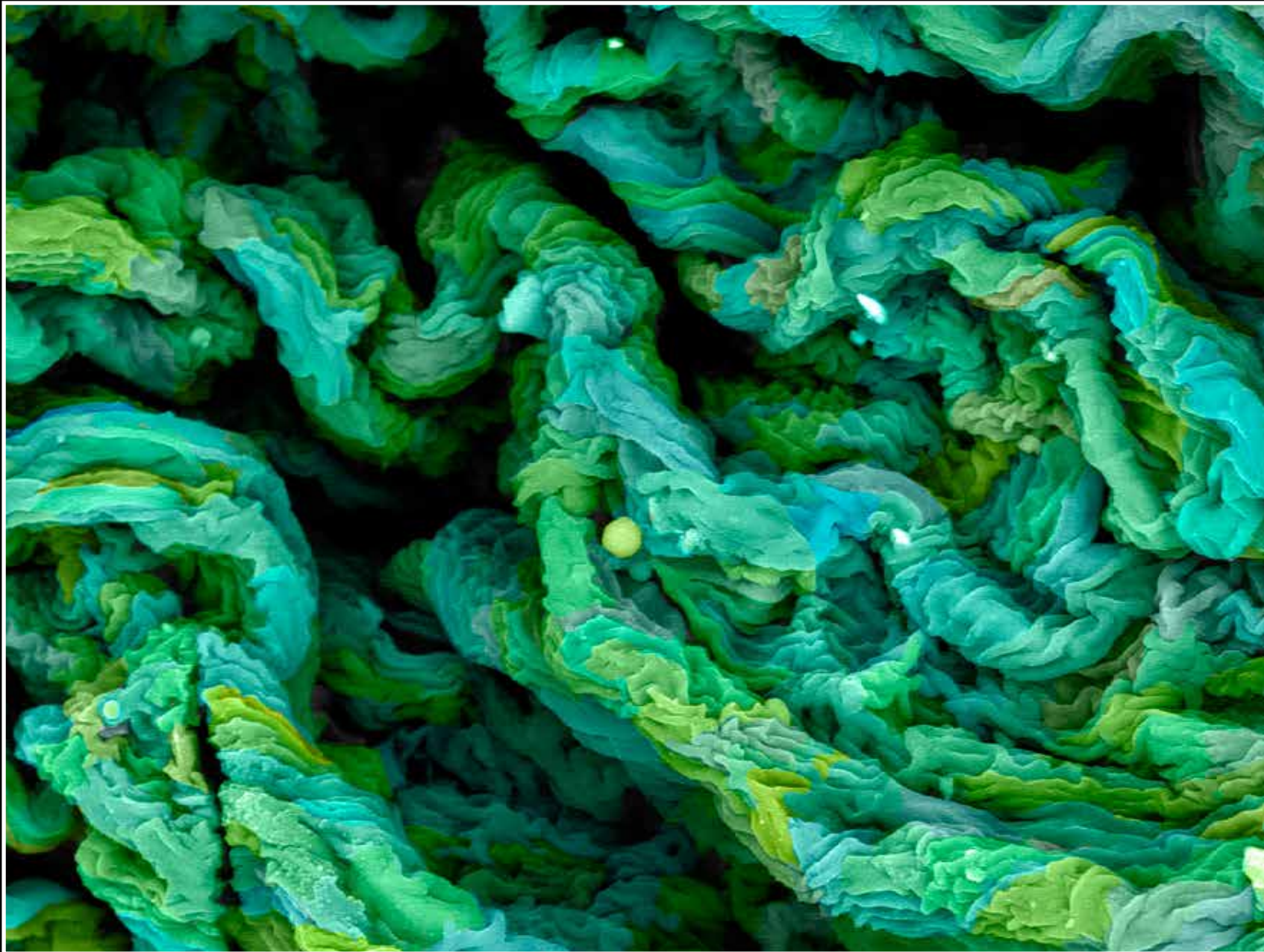
José R. Almodóvar Rivera, University of Puerto Rico Mayagüez Campus

Critically point dried, sputter-coated, with false color added / JEOL JSM-5410 LV SEM



February

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
 Carbon Nanotubes; Rebekah Downes, High-Performance Materials Inst, FSU	1	2	3	4	5	6
7	Chinese New Year 8	9	Ash Wednesday 10	11	12	13
Valentine's Day 14	President's Day 15	PANIC NMR 1/16-1/18 16	17	18	FIB-SEM Conference 19	20
Advanced Lithography 1/21-1/25 21	22	23	24	25	26	27
28	29					

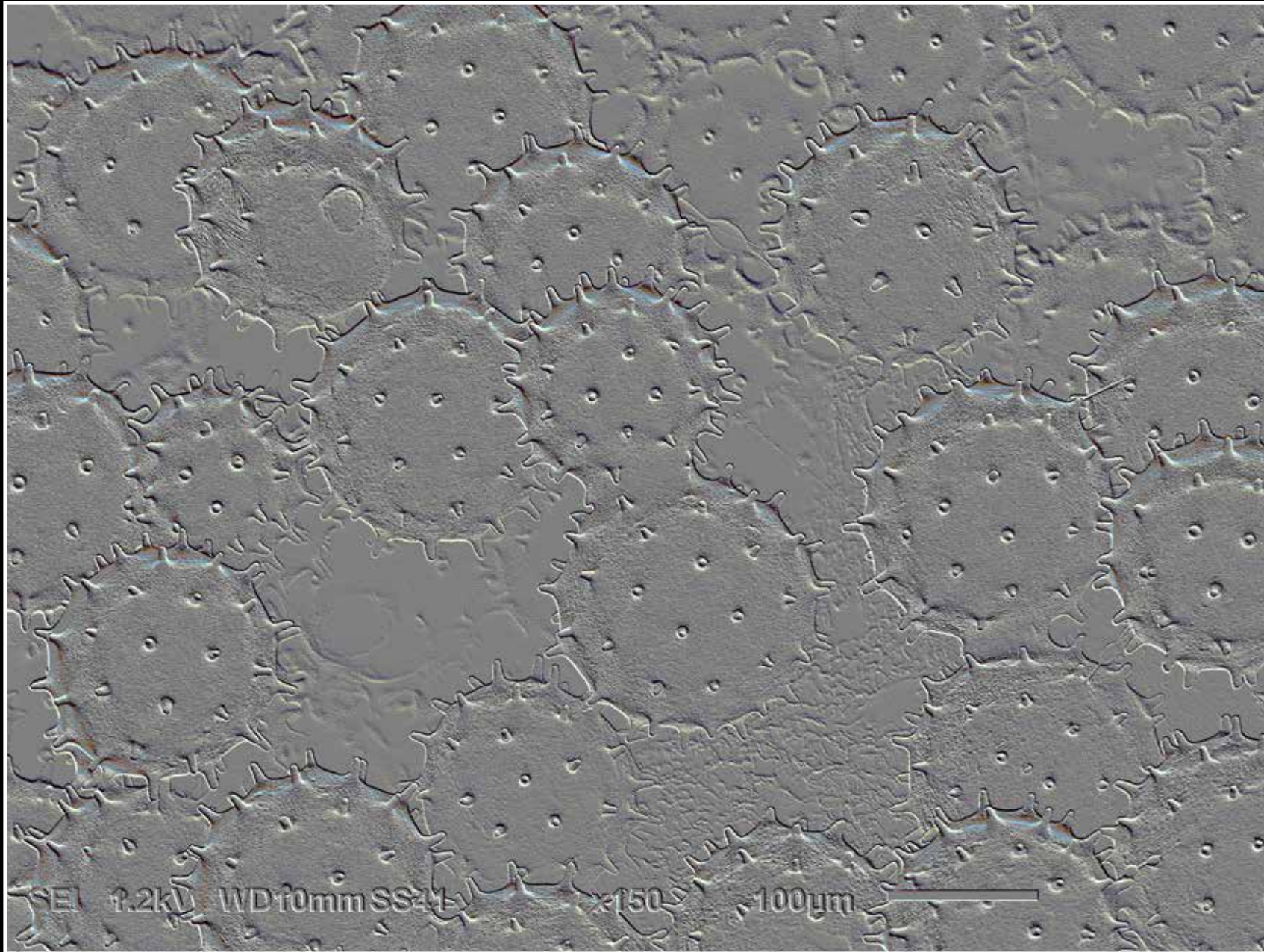


Dried pieces of Hot Silicone
Maria Paula Rodriguez, Universidad de Los Andes; JSM-6490LV SEM,
Photoshop enhanced color



March

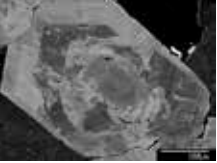
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
 Boron Carbide Crystal; Paniz Foroughi, Florida Int. University		1	2	3	4	5	
6	PITTCON 3/7-3/10	7	8	9	10	11	12
Daylight Savings Begins Spring ACS 3/13-3/15	13	14	15	16	St. Patrick's Day 17	18	19
Spring Begins Palm Sunday	20	21	22	23	24	Good Friday 25	26
Easter 27	28	MRS Spring 3/29-3/31	29	30	31		

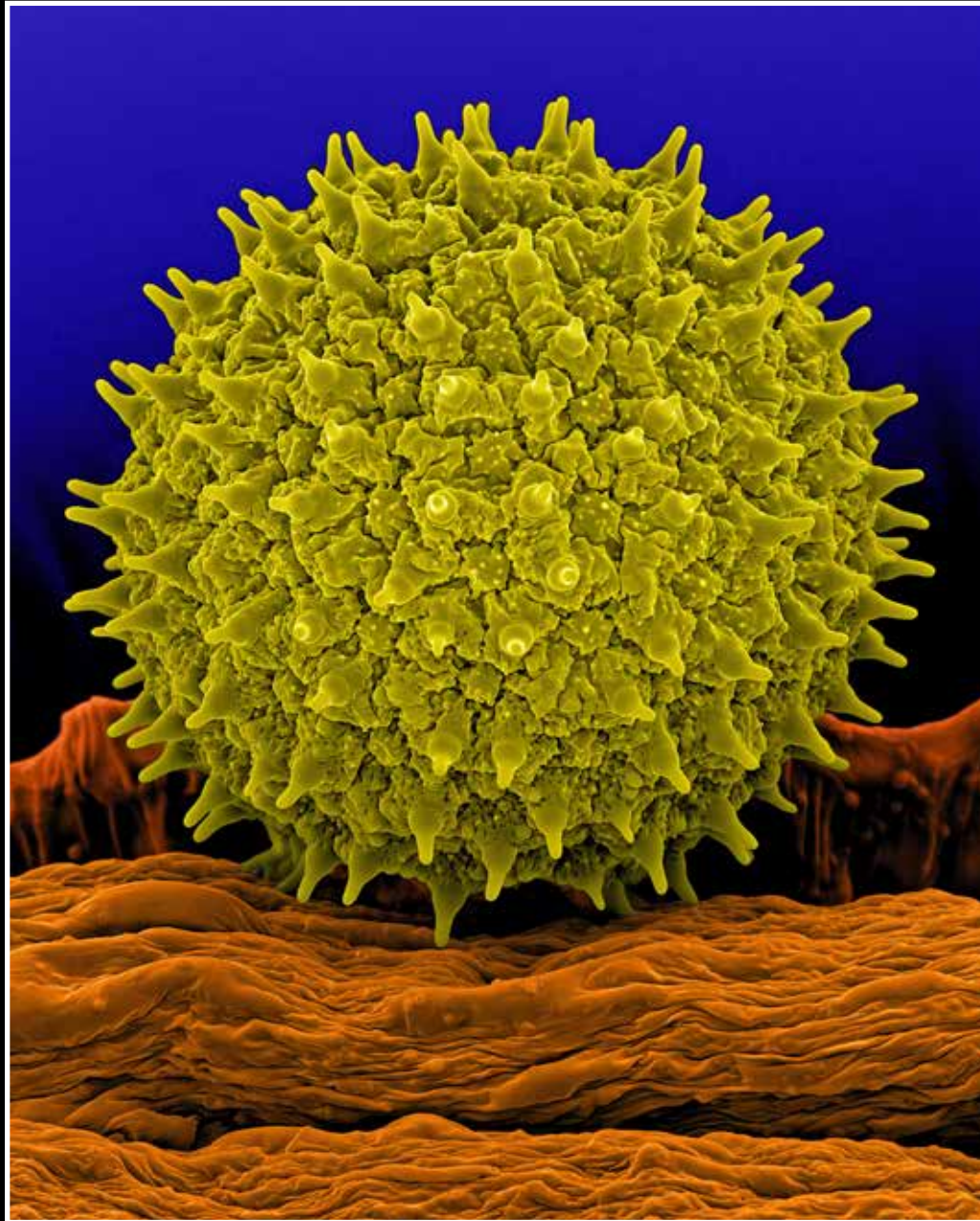


Hibiscus Pollen

Howard Berg, Danforth Plant Science Center

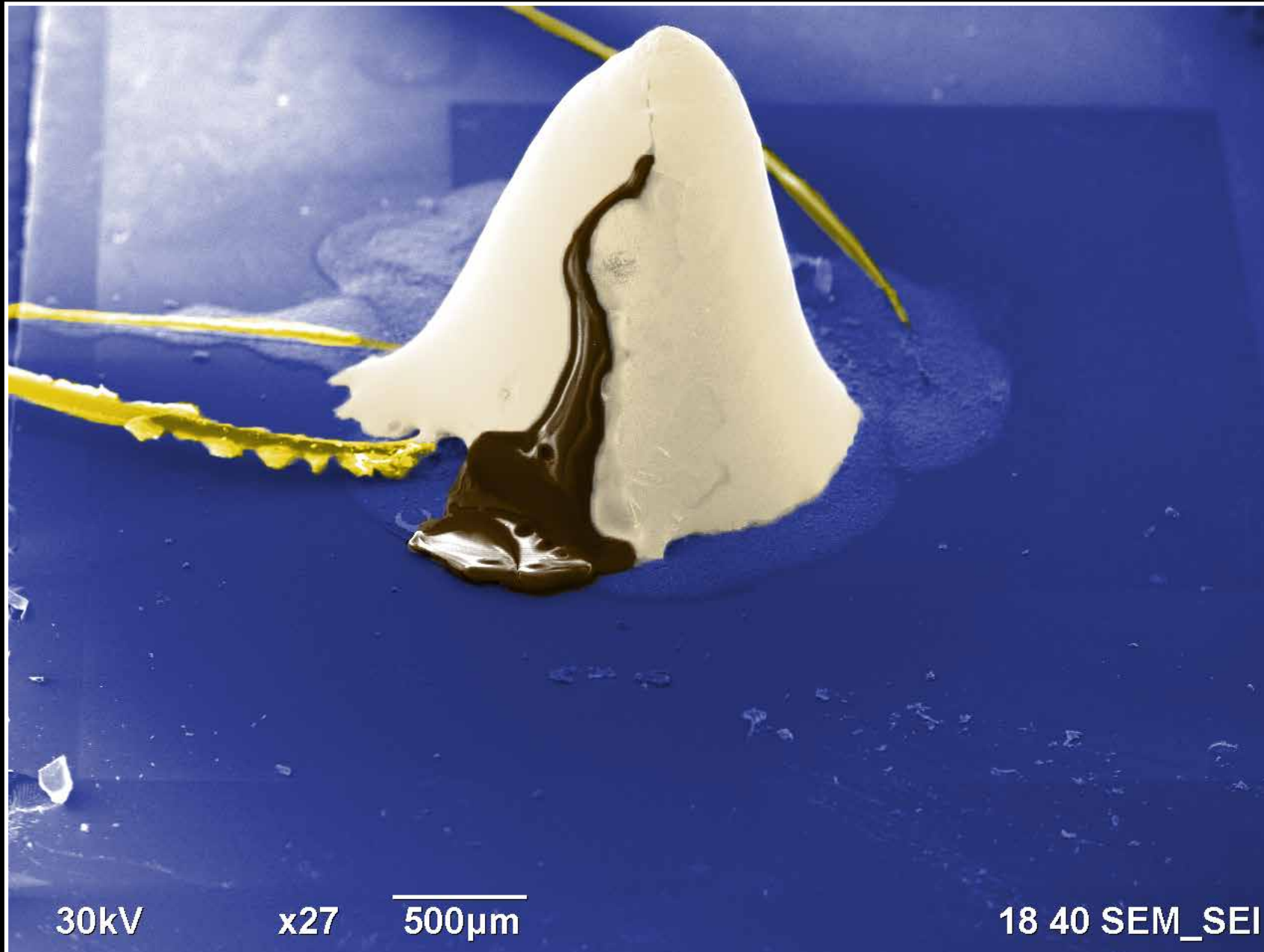
SEM image was manipulated using the embossing filter in Photoshop / JEOL JSM-6010 (InTouch Scope) SEM

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
 Tourmaline Crystal; Alexander Iveson, Washington State University					1	2	
3	4	5	6	7	8	9	
ENC 4/10-4/15	10	11	12	13	14	15	16
17	18	19	20	21	Earth Day Passover Begins	22	23
24	25	26	27	28	29	30	



Morning Glory Pollen Grain (still sitting on the anther)
Stefan Eberhard, Complex Carbohydrate Research Center / The University of Georgia
JSM-6010LV SEM; Color enhanced in Photoshop

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5 Cinco de Mayo Battle of Puebla Day (M)	6	7
8 Mother's Day	9	10	11	12	13	14
15	16 EPMA-MAS Topical Conference 5/16-5/19	17 MAAFS – Mid-Atlantic Association of Forensic Scientists 5/17-5/20	18 SEMS 5/18-5/20	19	20	21
22	23 Victoria Day (Canada)	24 EIBSD-MAS Silver Sponsor 5/24-5/26	25	26	27	28
29 GCxGC 5/29-6/3	30 Memorial Day	31 EIPBN – Electron, Photon, and Ion Beam Tech. & Fab. 5/31-6/3				 <p>Jessica Stevens and Noel Messick, Winthrop University</p>



"Solder Fudge"

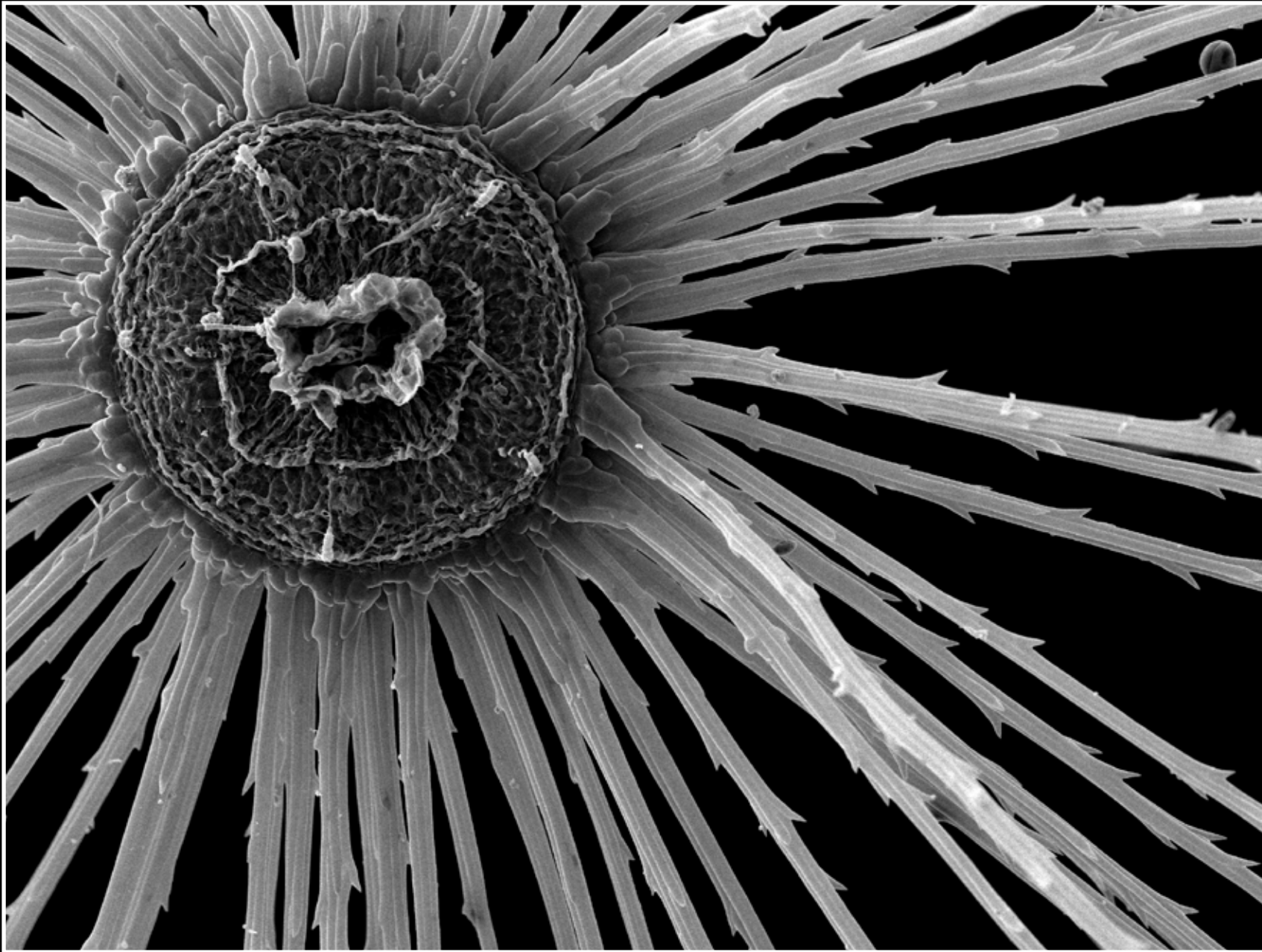
SEM image of molten solder connecting gold wires on a silicon wafer.

Ali Hadjikhani, AMERI / FIU; JIB-4500 FIB



June

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
 Alumina impurities; Paniz Foroughi, Florida Int. University			1	2	3	4
ASMS – American Society for Mass Spectrometry 6/5-6/9 5	Ramadan Begins 6	7	MSC – Microscopical Society of Canada 6/8-6/10 8	9	10	11
12	UGIM-Utah NanoFab Gold Sponsor 6/13-6/14 13	Flag Day 14	15	16	17	18
Father's Day 19	Summer Begins 20	21	22	23	St. Jean Baptiste Day (Que.) 24	25
26	27	28	29	30		



"Dandelion Sun"

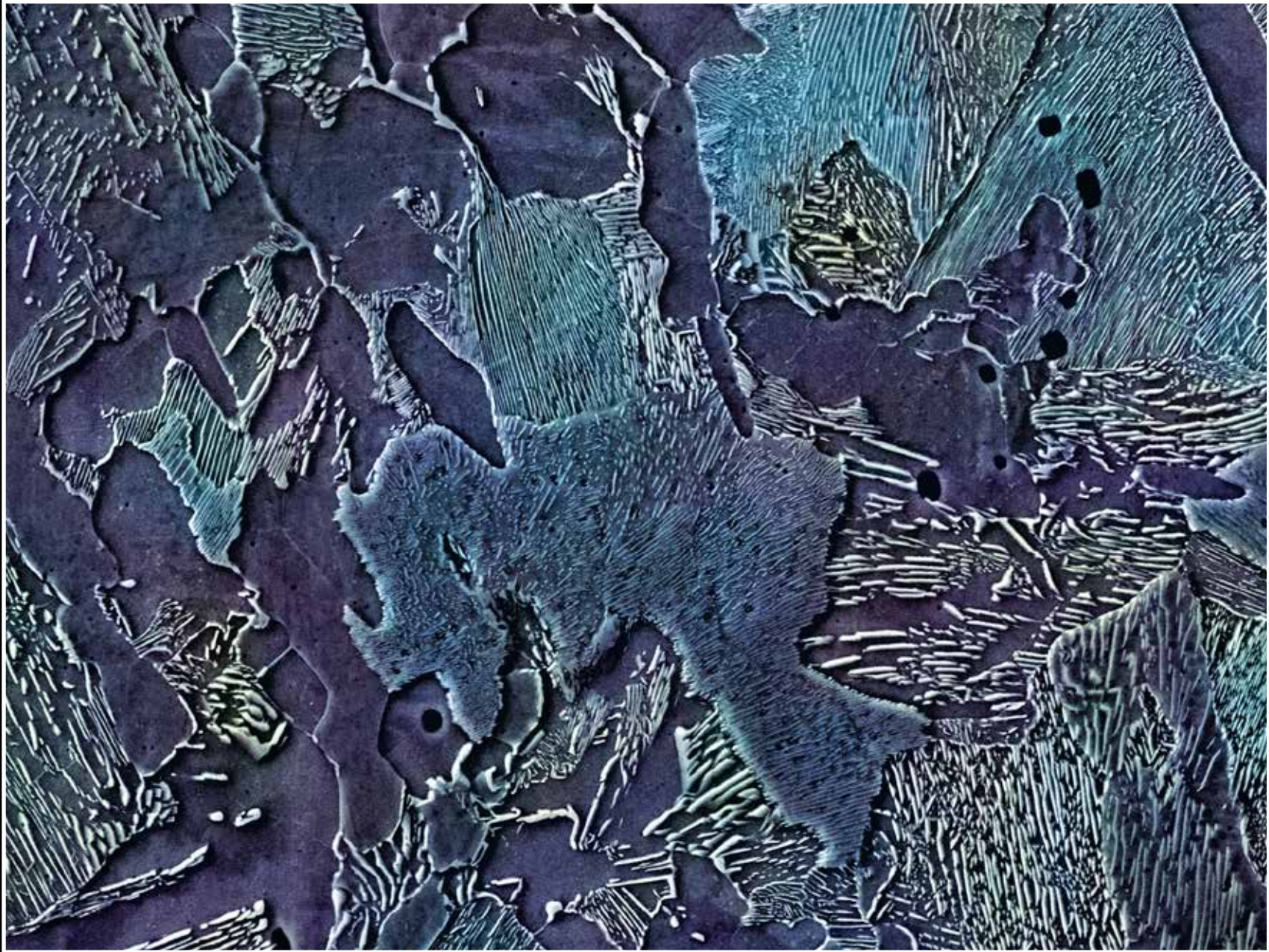
Dandelion's seed parachute

Cecilia Cuellar, Universidad de Guadalajara; Gold coated, background removed with Photoshop CS6, imaged with JEOL JSM-6610LV



July


Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
 Magnetite Nanoparticles; Ravichandran M, CINVESTAV-IPN					Canada Day (Canada) 1	2
3	Independence Day 4	5	6	7	8	9
10	11	SEMICON West 7/12-7/14 12	13	14	15	16
17	Rocky Mountain Conference on Analytical Chemistry 7/18-7/20 18	19	20	21	22	23
24	Microscopy & Microanalysis 7/25-7/28 25	26	27	28	29	30
31						

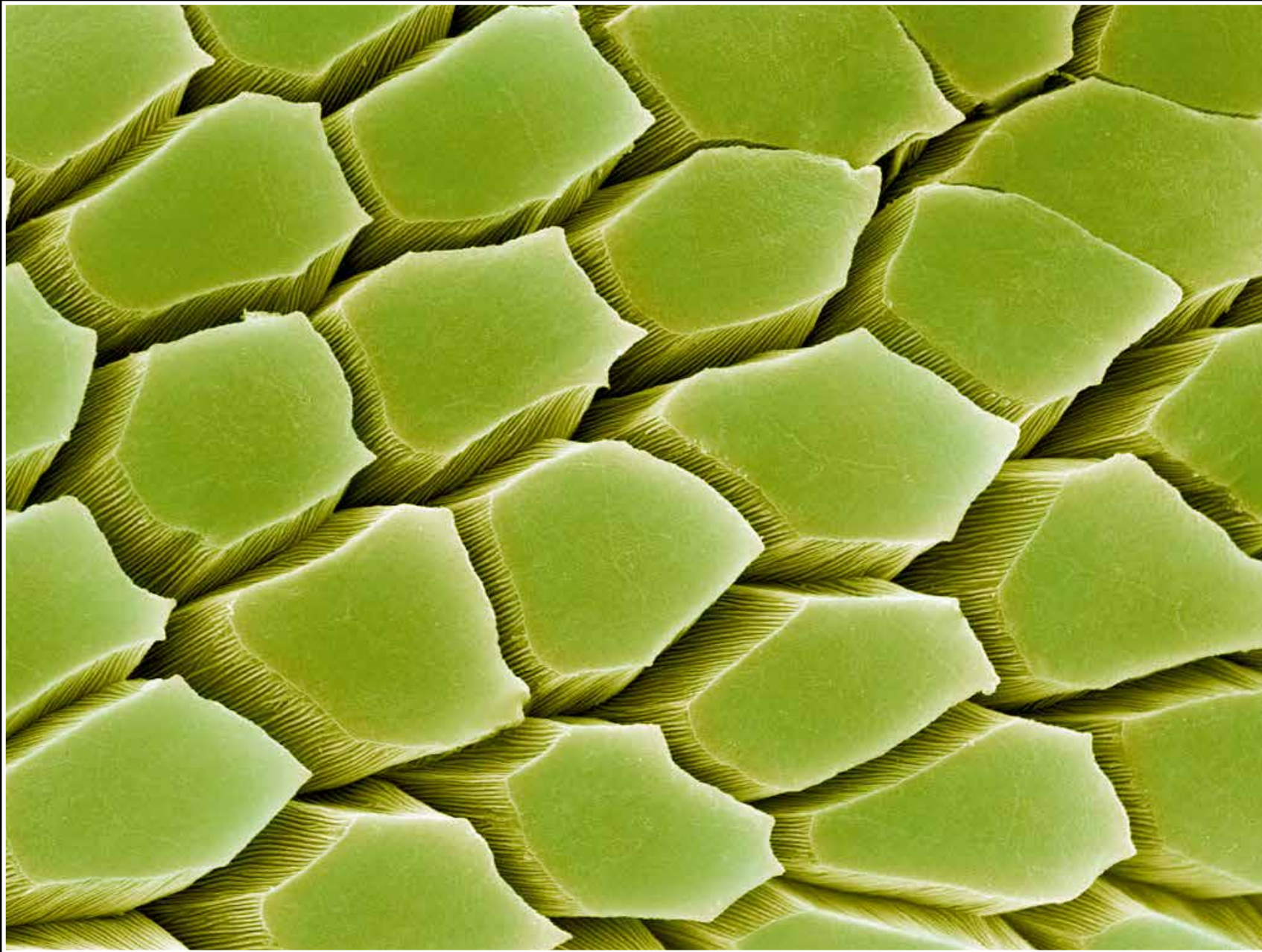


“Katana”

Katana before hardening (a.k.a. Samurai sword)

Sheri Neva, SEAL Laboratories, a Division of Evans Analytical Group; SEI/BEI JEOL JSM-6610LV

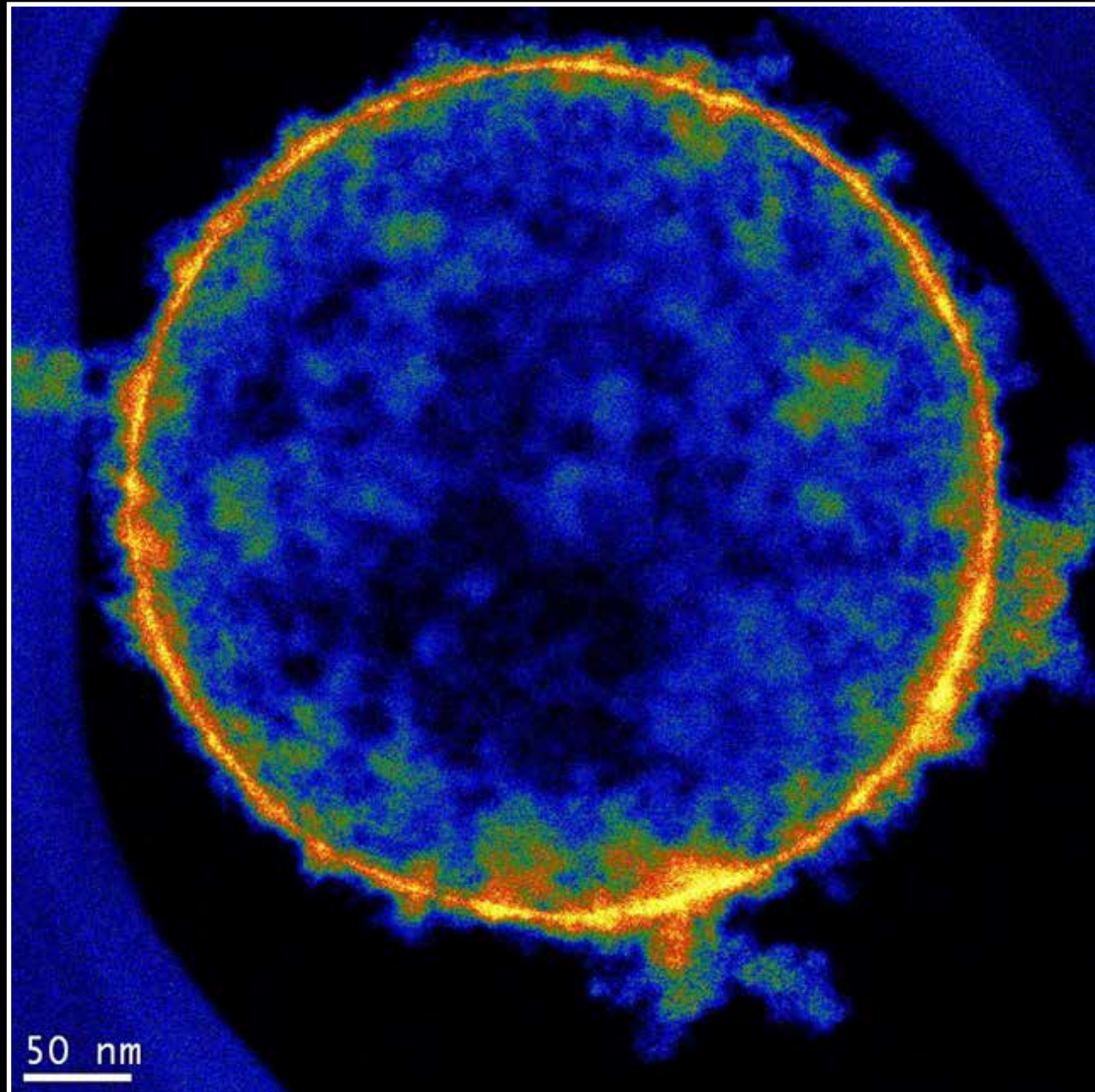
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
 <p>Sponge Spicules; Sahina Gazi, National Center Antarctic & Ocean Research, GOA</p>	Civic Holiday (Canada) 1	2	3	4	5	6
7	8	9	10	11	12	13
IMRC-MRS Mexico 8/14-8/19 14	15	16	17	18	19	Intl. MS Conference 8/20-8/26 20
Fall ACS 8/21-8/23 21	22	23	24	25	26	27
28	29	30	31			



"Sticky"

Details of the finger tips of *Eleutherodactylus*
José R. Almodóvar Rivera, University of Puerto Rico Mayagüez Campus
Critically Point Dried, Sputter-coated, JEOL JSM-5410LV SEM

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
 <p>Insect eggs on a leaf; Tatiana Cavalier (UNIANDÉS)</p>				1	2	3
4	Labor Day 5	6	7	8	9	10
SMASH NMR 9/11-9/14 11	SPIE BACUS Photomask 9/12-9/15 12	13	14	15	Independence Day (Mexico) 16	17
18	19	20	21	Autumn Begins 22	23	24
25	26	27	28	29	30	



GRAND PRIZE TEM IMAGE

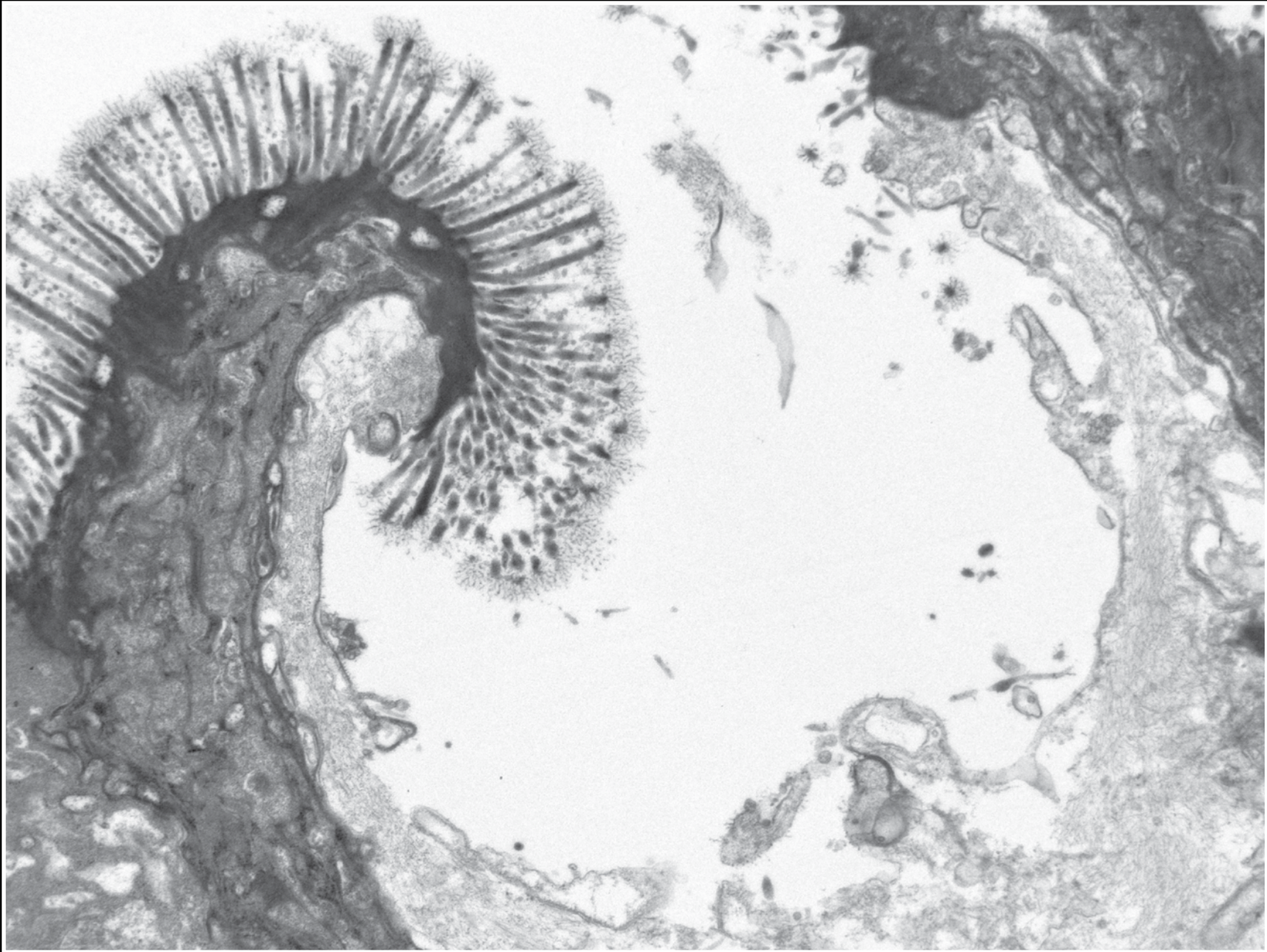
"Nano Sun"

Pseudo-colored Transmission Electron Microscopy image of a 500 nanometer silicate nanoshell particle.

The silicate nanoshell particle contains iron oxide concentrated on the inside of the shell (bright red ring).

Prof. Moon Kim's group: Ning Lu – University of Texas at Dallas, Sample from Prof. Andrew Kummel at UC San Diego; JEOL JEM-ARM200F TEM

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
 TiN Oxide; Jonathan C. Briones, De La Salle University						1
Rosh Hoshanah Begins 2	3	4	5	6	7	8
9	Columbus Day Thanksgiving (Canada) 10	Yom Kippur begins 11 Gulf Coast Conference 10/11-10/12	12	NEAFS – New England American Forensic Society 10/13-10/14 13	14	AReMS – Appalachian Regional Microscopy Society 10/15-10/16 15
SOFT Toxicology 10/16-10/21 16	17	18	19	20	21	22
23	24 MS&T – Materials Science & Technology 10/24-10/26	25	26	27	28	29
30	31 Halloween					

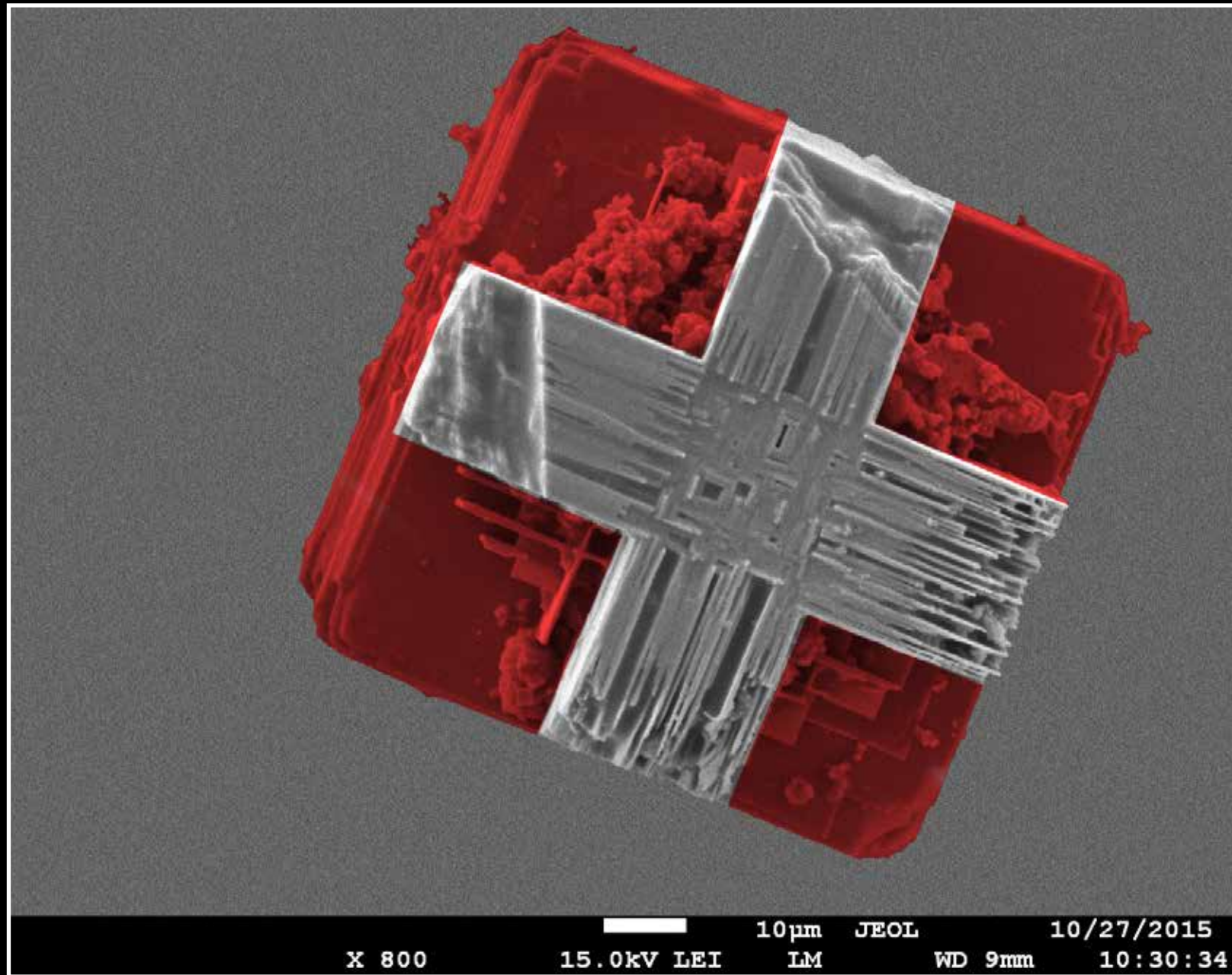


"Surf's Up"

Human Colonic Mucosa

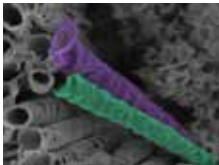
Janet E. Schwarz, University of Vermont Microscopy Imaging Center; JEOL JEM-1400 TEM

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
Daylight Savings Ends 6	7	ISTFA 11/8-11/9 8	9	10	Veteran's Day 11	12
13	EAS – Eastern Analytical Symposium 11/14-11/16 14	15	16	17	18	19
20	21	22	23	Thanksgiving Day 24	25	26
27	28	Fall MRS – Materials Research Soc. 11/29-12/1 29	30		 <p>Thin film of novel Ti₃C₂ (MXene) 2D-nanomaterial; Armin Vahid Mohammadi, Auburn Univ.</p>	



"Miniature Christmas Gift Box"

Hydrothermally grown perovskites; Credit: Jibrán Khaliq, TU Delft, The Netherlands; JEOL JSM-7500F SEM

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
 <p>Nanotube; Vinayaraj Ozhukil Kollath, UNESP</p>				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	Winter Begins 21	22	23	Hanukkah Begins 24
Christmas 25	Boxing Day (Canada) 26 Kwanzaa Begins	27	28	29	30	New Year's Eve 31

2016 — Celebrating the 50th anniversary of the first JEOL Scanning Electron Microscope



Visit www.jeolusa.com/winners to see all the images submitted for our 2014 and 2015 Image Contest or to submit your own for 2016.

www.jeolusa.com