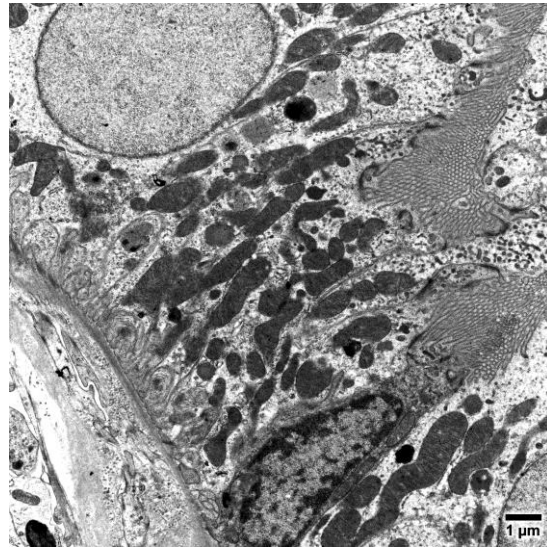
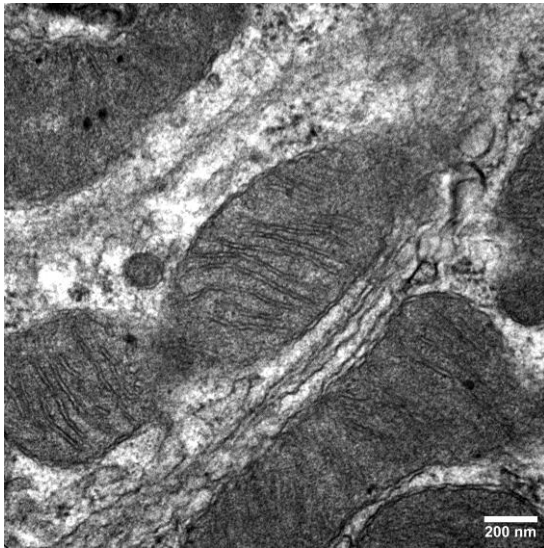


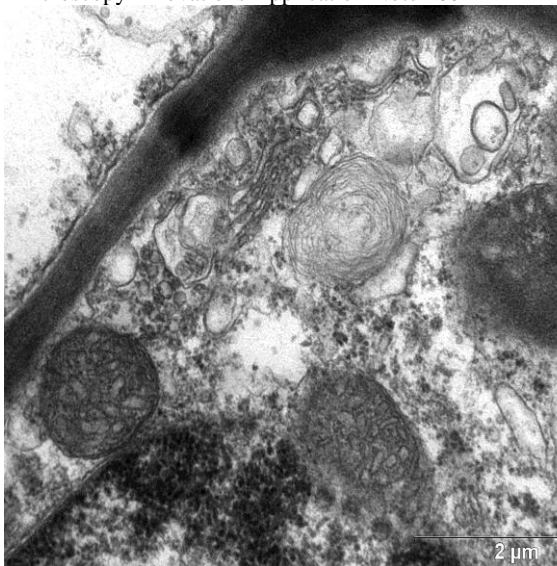
**EMS MICROSCOPY ACADEMY**  
**AUTOMATED AND RAPID SPECIMEN PROCESSING FOR ELECTRON**  
**MICROSCOPY WORKSHOP: A COMPLETE PICTURE**

*Examples of the endless possibilities in the field of Microscopy*

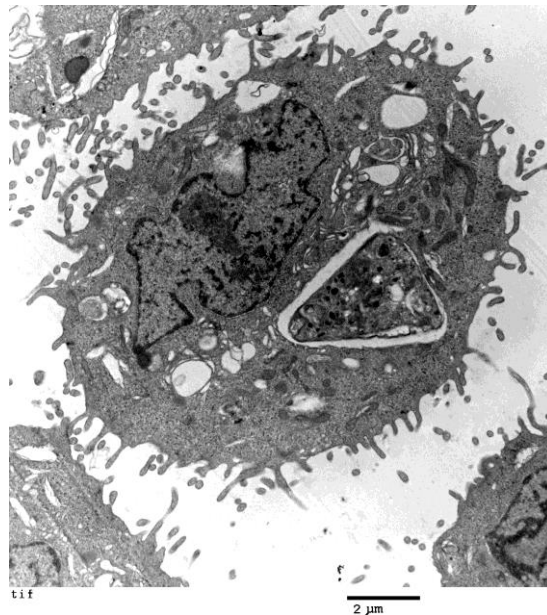


Eight mPrep/s capsules containing glutaraldehyde-fixed kidney specimens were mounted on the ASP-1000 before initiating the 45-minute processing program. Rapid processing, achieved by fluid exchanges occurring every half second, constantly delivered fresh reagent to the specimens.

-Microscopy Innovations Application Note #601



Cascade Hops Leaf  
-Michael Kostrna, MATC



Neuron Stem Cells  
-Michael Kostrna, MATC

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**Targeted Participants**

Lab managers or technicians who are responsible for the processing of samples for TEM analysis and currently do not incorporate either a microwave or automated processor in their lab.

**Details**

Monday, September 11, 2017, 8:00 a.m. - 5:00 p.m. to  
Tuesday, September 12, 2017, 8:00 a.m. - 1:00 p.m.  
Hatfield, Pennsylvania, USA

**The EMS Microscopy Academy**

Located in Hatfield, Pennsylvania, the Academy provides electron microscopy classes, workshops and training sessions for all fields of microscopy, including materials science and biological science.

**Scope of Class**

The preparation of samples for EM requires many steps, with extended wait times in between, requiring an entire day of a technician's time. This process consists of several fixative, wash, dehydration, and resin infiltration steps, which are tedious and prone to temporal variability between runs.

With the use of an automated tissue processor or microwave, a technician's time is reduced and better continuity between processing runs is obtained.

This class will introduce participants to the use of a dedicated lab microwave, EMS 9000, and 2 models of automated tissue processors Lynx II, and Microscopy Innovation's ASP 1000 for processing tissue samples for TEM.

**Enrollment Note**

Registration will be limited to a maximum of 15 participants. EMS will provide samples to those who prefer not to bring their own.

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**Format**

Lecture, demonstration, and hands on operation of systems used. Discussions about advantages and disadvantages, along with participant questions, are a significant component of this workshop.

**Instruments available**

<b>EMS 9000 Microwave</b>	<b>Lynx II Processor</b>	<b>Microscopy Innovations ASP 1000</b>
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**Main Curriculum**

- EM sample preparation requirements / time table
- Microwave theory and processing
- Lynx II setup and operation
- Microscopy Innovations ASP 1000 setup and operation

**Schedule**

*Monday, September 11, 2017*

8:00-8:30	Introduction of staff and participants
8:30-9:30	Setup and initiate processing run on Lynx II
9:30-10:00	Bench top processing schedule
10:00-10:15	Coffee break
10:15-12:00	Microwave theory and automatic processor discussion
12:00-12:30	Hosted lunch
12:30-1:30	Setup and initiate processing run on ASP 1000
1:30-4:30	Microwave processing run
4:30-5.00	Resin embedment from 3 processing runs, polymerize overnight

*Tuesday, September 12, 2017*

8:00-8:30	Discussions of previous day
8:30-9:00	Block assessment of different processing runs
9:00-9:30	Round table discussion of various processing methods
9:30-12:00	Trimming, thick sectioning and staining for OLM tissue assessment
12:00-12:30	Hosted lunch
12:30-1:00	Closing

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**Faculty**

1. **Michael Kostrna** was the program director of the Electron Microscopy Technician program at Madison Area Technical College and has more than 35 years in EM technical education and research experience. He holds an A.S. in Biological Electron Microscopy from San Joaquin Delta College and an M.A. in Education in Math, Science, and Technology. He has been training EM students for 29 years and has developed curricula and lab exercises for TEM, SEM, OLM lab safety, introductory and advanced biological EM, EM, maintenance, and x-Ray microanalysis. He has worked with companies such as SC Johnson Polymer, and Dow Chemicals, to Genetics, Virent Technologies, ABS Global, NanoOnocology, and Microscopy Innovations, and in the process gained insight to the various applications of EM in industry.
2. **Al Coritz** has been working in the Electron Microscopy field for Electron Microscopy Sciences for over 20 years. His previous experiences at Yale School of Medicine, Balzers, and RMC provides him with a broad depth of experience in biological EM, instrumentation, and especially cryo applications.

**Registration Fee: \$495 Includes**

- Workshop syllabus
- All supplies
- Reagents and solutions
- Lunches
- Coffee
- Tea

**Lodging**

Participants are responsible for making their own hotel reservations. The following hotel has been designated as the host hotel:

**Homewood Suites**

1200 Pennbrook Parkway  
Lansdale, PA 19446  
Phone: 215-362-6400

The special rate is \$119.00 per night (plus tax) which includes a hot breakfast and a light dinner in the evening.

Please make your reservations and mention you are participating in the EMS Workshop.  
GROUP CODE: EMS WORKSHOP

Everyone should plan to arrive the evening of September 10<sup>th</sup>.

**EMS MICROSCOPY ACADEMY**  
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**Printable Registration Form**

\_\_\_\_\_ M / F  
Name / Title

\_\_\_\_\_  
Institution

\_\_\_\_\_  
Department

\_\_\_\_\_  
Mailing address

\_\_\_\_\_  
City / Zip

\_\_\_\_\_  
Country

\_\_\_\_\_  
Telephone / Fax

\_\_\_\_\_  
Email:

Will you bring your own specimens? Yes\_\_\_ / No\_\_\_ (See Note on prior page)  
What Samples are you bringing and most interested in?  
\_\_\_\_\_

All registrations must include payment.  
Rate \$495.00 per Person  
Number of Participants \_\_\_\_\_  
Total \$ \_\_\_\_\_

Pay by check: make payable to EMS and reference "RAPID PROCESSING WORKSHOP".  
Pay by credit card: Credit Card Type \_\_\_\_\_  
Credit Card Number \_\_\_\_\_  
Expiration Date \_\_\_\_\_ 3 Digit Code \_\_\_\_\_

\_\_\_\_\_  
Signature / Date

Return your registration to:  
Stacie Kirsch  
1560 Industry Road  
Hatfield, PA 19440 USA  
Phone: 215-412-8402  
E-Mail: [sgkcck@aol.com](mailto:sgkcck@aol.com) or Fax: 215-412-8452

**TO REGISTER ONLINE, CLICK [HERE](#).**