Examples of the endless possibilities when doing Immunogold Staining

Immunogold silver staining of E-cadherin on a paraffin section of human skin.
Courtesy of R. Moella, Dept. of Exp. Path., EUR, The Netherlands
• Mouse monoclonal anti E-cadherin
• GAM IgG Ultra-Small
• Aurion R-Gent SE-LM

Immunogold silver staining of alpha-amylase on Lowicryl HM20 section of rat pancreas.
• Goat-anti-Rabbit, 15nm

Immunogold silver staining of alpha-amylase on Lowicryl HM20 section of rat pancreas.
• Goat-anti-Rabbit, 15nm
• Ultra-small R-Gent (Dansher Method)

Pre-embedding immunogold labeling of Huntingtin Interacting Protein 3 in Mouse Brain using Aurion GAR Fab-US and Aurion SEEM.
Courtesy of Ms Hong Yi, Emory University, Atlanta, GA
EMS MICROSCOPY ACADEMY
AURION IMMUNOGOLD SILVER STAINING WORKSHOP

Details

Wednesday - Friday
April 15 - 17, 2020
8:30 a.m. - 4:30 p.m.
Hatfield, Pennsylvania, USA

Targeted Participants

Students, researchers, and microscopists who want to learn the most up to date theory and practice in immunogold labeling.

Scope of Class

The objective of the course is to provide researchers with the opportunity to learn the theory and practice of immunogold labeling. Participants will process their own samples under the expert guidance of our tutors, who are experts in immunogold Silver Staining techniques.

During the workshop attendees will receive theory, including but not limited to immune detection, in situ hybridization, silver enhancement, as well as background issues. There will be time for practice, as well. Attendees will be able to work with their own specimens, as well as ones we will have prepared. A full review of incubation methods, testing of antigenicity and reactivity, complete principles of immunogold labeling, and preparation of conjugates for EM and LM will be covered.

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.

Instruments Available

<table>
<thead>
<tr>
<th>Zeiss TEM</th>
<th>Inverted Light Microscope</th>
<th>Transmitted Light Microscope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orbital Shakers</td>
<td>Magnetic Stirrers</td>
<td>PH Meter</td>
</tr>
</tbody>
</table>

Format

Lecture, demonstration, and hands-on practice, as well as round table tips and tricks discussions. Participants are encouraged to bring their own samples to work on during lab time.
Note

Specimens need to be “ready to use”, e.g., sections of chemically fixed cells on coverslips. For each combination of primary antibody and gold conjugate that you want to test during the workshop, you need at least 3, preferably 4, specimens. This enables you to test different dilutions of the primary antibody and to check the Immuno Gold/Silver reagents (negative control).

For pre-embedding immuno labeling, also include specimens that will be immuno labeled for evaluation on the light microscope. These specimens are used to see if the experiment is successful. During the workshop there is no time/no option to further process pre-embedding specimens for EM evaluation. Plastic embedment and sectioning needs to be done at your own facility.

Instructors

Peter Van De Plas has a background in histology and immunocytochemistry and joined Aurion in 1991. During the pioneering phase of Aurion in the early nineties, he worked closely with Dr. Leunissen in founding a firm basis for Aurion. He contributed not only to the development of product applications, but also in designing the Aurion Immuno Gold Silver Staining workshop. He has been invited to many international microscopy conferences and workshops, and is especially experienced in providing hands-on training. Former workshop attendees and customers appreciate Peter for his technical support on, and his thorough knowledge of, the Immuno Gold silver staining techniques. The Aurion Immuno Gold workshops in Europe, Asia, Australia, and the US have all been fully attended and very well received.

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 has been training EM students for 30 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, Dow Chemicals, Io Genetics, Virent Technologies, ABS Global, NanoOnocology, and Microscopy Innovations, and in the process gained insight to the various applications of EM.
**EMS MICROSCOPY ACADEMY**  
**AURION IMMUNOGOLD SILVER STAINING WORKSHOP**

**Main Curriculum**

Gold nanoparticle conjugation  
Theory underlying immunogold labeling protocols  
Silver enhancement of gold particles  
Immunogold labeling on a variety of sample preparations of OLM  
Immunogold labeling for EM  
   a. Pre-embedment immunogold labeling using ultra small gold conjugates and silver enhancement  
   b. Post-embedment immunogold labeling on plastic and ToKuyasu cryo sections using conventional colloidal conjugates and ultra small gold conjugates  
   c. Manual and automated immunoiold labeling  
Pre/Post-embedment double immunogold labeling  
Background minimization in immunogold labeling  
Troubleshooting

**Registration Fee: $1,200.00 Includes**

A workshop syllabus, all supplies, reagents and solutions, lunches, coffee, tea, and dinner on the opening evening of the workshop.

**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 rates are $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 night before class begins.

**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.
EMS MICROSCOPY ACADEMY
AURION IMMUNOGOLD SILVER STAINING WORKSHOP

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  $1,200.00 per Person
Number of Participants ________
Total $_________

Pay by check: make payable to EMS and reference “Aurion Workshop Apr20”.
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: info@emsdiasum.com or Fax: 215-412-8452

TO REGISTER ONLINE, CLICK HERE.