



CANADIAN CYTOMETRY & MICROSCOPY ASSOCIATION
ASSOCIATION CANADIENNE DE CYTOMÉTRIE ET DE MICROSCOPIE

CytoTimes

VOLUME 1, ISSUE 2

Nov 30, 2012

THE CCMA EXISTS TO:

- Encourage the sharing of knowledge regarding flow cytometry and optical microscopy;
- Create a pan-Canadian network of people interested in these cutting-edge technologies;
- Promote scientific exchange;
- Provide educational opportunities from experts in the field for technology users of all levels - beginner to expert.

Core facilities unite: NERDS and ABRF

CCMA members are students, technicians, principle investigators, company representatives, and also an increasing number of core facility managers and staff, all sharing an interest in cytometry's various forms. In the States, where the centralization of instruments into core facilities is more prevalent, several broader associations of core facilities have formed that focus on all aspects of running shared resources.

The Northeast Regional Life Sciences Core Directors

(NERLSCD, or colloquially referred to as "NERDS") held its sixth annual meeting in New Hampshire in October, attracting about 100 attendees including a dozen or so Canadians. Most sessions had an interactive panel format, with the entire group discussing general issues (use of service contracts, metrics for evaluating cores, etc.) and break-out sessions tackling issues pertaining to particular cores (such as flow cytometry and microscopy).

NERDS is a regional affiliate of the larger **Association of Bio-**

molecular Resource Facilities, (ABRF). While the ABRF was founded around proteomics and genomics facilities, it has developed into a comprehensive professional organization covering nearly all life science technologies, including flow cytometry and microscopy.



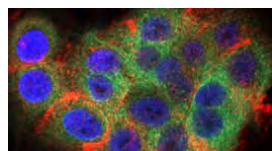
If you manage a core facility and want to tap into the bigger picture, consider attending the **ABRF's annual meeting from March 2-5, 2013, in Palm Springs, California**. The annual meeting features keynote and plenary talks from world renowned researchers from diverse fields who use many biotechnologies in addressing their scientific questions. Workshops and tutorials are focused on career development, core facility management and administration as well as specific technologies. For the first time, this year's ABRF meeting will have a specific microscopy track

featuring talks from renowned microscopists including Jennifer Lippencott-Schwartz (NIH), Robert Campbell (U. Edmonton) and Jonas Ries (ETH Zurich). The meeting also offers ample opportunities to network with those who work in other core facilities.

A unique aspect of ABRF is the association's **research groups**. Over fifteen research groups push ahead their fields by running benchmarking studies, supporting standardization and quality control measures, and

fostering interactions between resource labs and instrument and reagent vendors. The CCMA's Claire Brown has led the Light microscopy Research Group for the past 2 years, during which time the group has completed an international study of confocal microscope resolution, objective lens quality and spectral imaging quality and accuracy. This study will be presented at ABRF 2013.

As the first international affiliate of the ABRF, the CCMA hopes its members will benefit from pioneering work done by the ABRF to provide resources for core facilities.



cytometry /cy-tom'-e-try (noun)
The characterization and measurement of cells and cellular constituents.

Webinar Watch

Webinars can be a great way to get in on high-quality training sessions or tutorials from the comfort of your own desk. Missed a good one? Don't worry: most webinars are available On Demand after the event has aired! Here are some of our favourites:

Science Magazine: <http://webinar.sciencemag.org/previous-webinars/Technology>

- *What Cytometry Can Do For You: The Pros and Cons of Image and Flow Cytometry*
- *Techniques and Methods in Live-Cell Imaging: Practical Advice for Microscopy-based Research*
- *Optical Sectioning using Light Sheet Microscopy: In Vivo Imaging with Astounding Resolution*
- *Deciphering the Cell: Applying Super-Resolution Imaging and HCA to Reveal Cellular Processes*

Life Technologies: <http://www.invitrogen.com/site/us/en/home/support/Webinars.html>

and <http://www.invitrogen.com/site/us/en/home/brands/Molecular-Probes/Molecular-Probes-Webinars.html>

- *Flow Cytometry in Microbiological Research*
- *An Introduction to Flow Cytometric Analysis using Molecular Probes® Reagents: A 2-Part Series*
- *An Introduction to Immunofluorescent Staining of Cultured Cells*
- *A Comparison of Basic Immunofluorescent Labeling Strategies*
- *Myths and Mysteries of Cell Culture*

Lumen Dynamics: <http://www.ldgi-xcite.com/news-webinars.php>

- *Lamp? LED? Laser? Which Light Source is Best for your Microscopy Application?*

Cell Press: <http://www.cell.com/webinars>

- *Imaging the Sustainable Cell*
- *Live Cell Imaging: Cell-Cell Interactions*
- *Optogenetics in Neurons and Beyond*
- *Visualization and Analysis of Intracellular Dynamics*
- *Super-resolution*

Andor Technologies: <http://www.andor.com/learning-academy/>

- *Camera Technologies for Microscopy*

Literature Highlight

Cromey DW. "[Avoiding twisted pixels: ethical guidelines for the appropriate use and manipulation of scientific digital images](#)". *Sci Eng Ethics*. 2010 Dec;16(4):639-67.

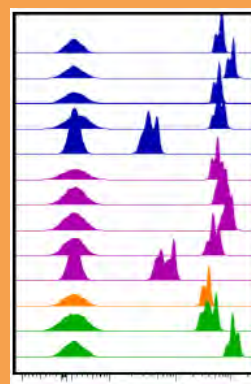
It's hard to imagine doing quantitative microscopy in cells without digital cameras. And yet, the very same tools that make processing and analysis possible can also be misused (intentionally or not) rather easily. In this paper, Cromey proposes 12 guidelines for the appropriate use and manipulation of scientific digital images, including:

- Always keep a copy of the original (raw) image.
- To compare images, they must be acquired under identical conditions.
- Simple adjustments to the entire image are usually acceptable (brightness, contrast) provided they are applied equally to all images that will be compared to each other.
- Manipulations that are performed only on certain areas of an image are questionable.

Want to hear more? Doug Cromey will be one of the panelists, along with James Jonkman, at ABRF 2013 on the **Image Processing Tricks of the Trade** roundtable discussion.

Cool Tools

Compensation simplified: EBio-science has developed **OneComp eBeads** that simplify single-color compensation controls in multi-colour flow experiments. Each drop of beads contains 2 populations: a positive population that reacts with antibodies of mouse, rat, and hamster; and a negative population that will not react with antibody. Add a drop of your fluorochrome-conjugated antibody, and let the compensation begin!



Courses / meetings

March 2-5, 2013: Association of Biomolecular Resource Facilities (ABRF) Annual Meeting
Palm Springs, CA. conf.abrf.org

March 24-27, 2013: Focus on Microscopy
Maastricht, The Netherlands. www.focusonmicroscopy.org

May 19-22, 2013: ISAC CYTO2013
San Diego, CA. <http://cytoconference.org/cyto/2013/Home.aspx>

May 28-June 7, 2013: Frontiers in Neurophotonics
Quebec City, QC. www.neurophotonics.ca

* **June 13-15, 2013: Canadian Cytometry and Microscopy Association Symposium**
Montreal, QC. www.regonline.com/ccma-accm2013

June 24-28, 2013: Comprehensive Course on Fluorescence Microscopy
University Health Network, Toronto, ON. www.aomf.ca/comprehensive.html

This spring, check out the fantastic line-up of Canadian and international courses and meetings on flow cytometry and microscopy. Want to let others know about your favourite ones? Email us at:

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Meet The CCMA/ACCM Executive...

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The **Canadian Cytometry & Microscopy Association**

invites you to the

4th CYTOMETRY & MICROSCOPY SYMPOSIUM

June 13th to 15th, 2013

McGill University, Montreal

Keynote Address:

Imaging Cancer and the Immune Response in Action

Peter Friedl, MD, PhD

Professor, Radboud University

Nijmegen Medical Center, The Netherlands

Scientific Talks

Workshops

Posters

Core Facility Managers' Meeting

Vendor Exhibition



REGISTER NOW!

Call for Posters – Submit your abstracts by **March 1st, 2013**

Early registration ends **March 1st, 2013**

www.cytometry.ca



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