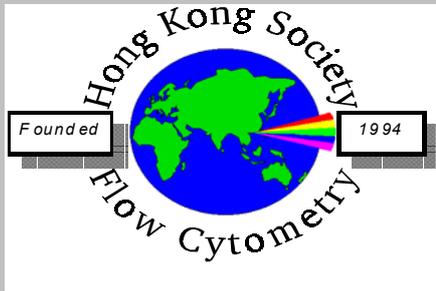


FLOW NEWS

Newsletter of the Hong Kong Society of Flow Cytometry



September, 2001
Volume 7, Issue 1

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President's Report

Ken W K Liu

It is a pleasure to assume the role of president of the Hong Kong Society of Flow Cytometry for 2001-2002, and to work with a group of dedicated council members who are willing to spend their time for promoting research and development in flow cytometry, and also providing service to the members of our society. Before describing a few of my hopes for our society in the second year of the millennium, I would like to thank Dr. Jennifer Wan for her extraordinary leadership and the council members for their excellent advice and effective work over the past year. It remains, however, clear that the continuous support and participation of the members are important to the society.

The success of our millennium research symposium, with a record high attendance and the first keynote speaker from mainland China, has a major impact on the direction of the society. In addition to our long-term collaboration with overseas scientists, it is time to extend our links with flow users in the mainland where the number of flow instruments is on a rise, an estimate of more than 3000 in year 2000. We are glad that the society has recruited members from Macau and the mainland in this year. We are also in contact with regional flow societies, and hope to jointly organize scientific meeting in the near future.

The number of flow instruments is also increasing in Hong Kong, and the aim of the society is to encourage the use of these powerful instruments in both clinical and scientific applications. The society had thus organized a series of workshops (see separate articles for details) in this year, and the topics were:

- (1) "Current trends in leukemia and lymphoma (L&L) typing" by Dr. Tom Frey from Becton Dickinson in March 2001;
- (2) a series of 3 "Maintenance tips workshops for flow cytometers" by Dr. Keith Caro of Beckman Coulter HK Ltd in May and June, 2001.

A third workshop will be co-organized with Beckman Coulter on "Multi-comp and ADC software, 6 color compensation kit" in this October.

We recognize the important mean to improve better service to our members is communication, and we have therefore appointed two work groups:

- (1) The development of electronic newsletter group is led by Dr. CK Wong. The distribution of electronic newsletter to our members will be economical and sped up through internet. However, we understand that some members do not have email addresses, and thus the practical implementation of this development will be a mix of electronic and paper versions that makes use of the internet as well as mail. The work group is interested in hearing from you on ways to improve the distribution of our newsletter and other information, such as announcements for seminars

and workshops. Please inform Dr. C.K. Wong at (ck-wong@cuhk.edu.hk) if you do not receive any copy of this newsletter.

- (2) The construction of the homepage of the Hong Kong Flow Cytometry Society group is led by Dr. MS Leung. The homepage will be under the Federation of Medical Societies of Hong Kong Domain. We plan to put useful information, internet links, or names and addresses of some friendly experts who can give us advice in our website. Your valuable input and advises will be greatly appreciated, and directed to Dr. M.S. Leung at msleung@cuhk.edu.hk.

In the next issue of the newsletter, I will address more details of the next annual symposium which will be organized in late January or early February 2002, and you will be informed when the schedule is fixed. I welcome your thoughts and ideas on how council and I can make our society a more effective scientific organization.

The Sixth Symposium of Hong Kong Society of Flow Cytometry: another Successful Scientific Event

Ex-President –

Jennifer Wan, Associate Professor, Zoology Department, The University of Hong Kong

I am happy to report on yet another successful scientific event for the Society. Around 100-150 people attended the 6th research symposium of the Society. We thank Beckman Coulter Hong Kong Ltd, Hong Kong, for their generous sponsorship for the symposium. General comments received from members indicated that the symposium was not only scientifically up-to-standard, but the gathering was also most enjoyable and friendly. Over two third of people stayed behind for the entire afternoon.

The selected program was intentionally varied so that there would be something of interest for everyone in the audience. We had two invited speakers from outside Hong Kong: Professor Xueguang Zhang from Soochow University who talked about "Immunological and Molecular Mechanisms of Abnormal T lymphocyte activation in patients with aplastic anemia"; and Dr. Keith Caro from Beckman Coulter Hong Kong Ltd who discussed "Maintenance tips for Flow analyzers and flow cytometers with sorters".

We had 3 oral presenters from the local institutions. Helen Law from HKU talked on "Phenotypic analysis of cord blood cells: is shifting of the goal posts allowed?" Joyce Ho from the Chinese University presented "Straw mushroom lectin inhibits tumor cell growth by

inducing cyclin-dependent kinases; and I shared my work on "The application of flow cytometry in Chinese medicine research on cancer". The poster presentation idea forwarded by Dr. Karen Li was our first try in the symposium and the result was satisfactory. Posters presented topics included: "Flow cytometry of apoptosis and intracellular cytokines of human blood lymphocytes" by CY Ho et al., from CU; "Genes expression in the sorted merkel cells in sinus hair follicles of the rats" by MS Leung, et al., from CU; "Thrombospondin-1 induces apoptosis of human leukemia cells in culture" by K Li et al., from CU; "Effect of plant lectins on lymphocyte proliferation" by WK Liu et al., from CU; "Micrometastasis and dissemination of neuroblastoma cells in bone marrow and peripheral blood stem cells" by KS Tang et al., from CU; "Cytometric bead array of cytokine assay: a high throughput analysis" by CK Wong et al., from CU; "Quantitative analysis of leukocyte surface markers for the identification of neonatal sepsis" by RPO Wong et al., from CU; "Green fluorescent protein gene marking study by the generation of a GALV pseudotyped MSCVeGFP retrovirus-producing cell line" by E Yung et al., from CU; "Flow cytometric detection of human hematopoietic cell engraftment in NOD/SCID mouse" by X B Zhang et al., CU; and "Induction of apoptosis by ursolic acid and Catharanthus roseus extract in human leukemia cells (HL-60) correlated to reduction of Bcl-2 expression" by X Yang from HKU. I was happy to see many students presented their excellent work in the field of flow cytometry. The presenters were relaxed, clear, informative and shared with us of their original work.

I had a fruitful year as a president of the society for the year 2000-2001. Many thanks to the Exco members, in particular, our secretary Mr. Xiatong Yang, for his excellent responsibility for

the society. We had achieved most of our objectives as written in our constitution. We were able to facilitate the integration of the various applications, disseminate knowledge of flow cytometry by holding workshops, organizing talks and symposium. However, it seems to me that the applications of flow in Hong Kong are still too limited to cancer and immunological research. We need share-data from more diverse fields such as in marine biology, ecology, microbiology etc. Perhaps, it is the responsibility of the new ExCo to try to meet these goals. It is also just about the right timing for the society to open the Flow Cytometry Web-site to facilitate the communication more effectively at both local and international level. I also hope to see we can hold the regional international symposium and inviting more flow users from China, Banging, Singapore, Australia etc., to come to Hong Kong in the near future. Once again, thank you all for all yours support, let us "flow" more and longer.....

ISAC XXI International Congress

Dear ISAC Member,

The ISAC XXI International Congress Call for Abstracts is underway. ISAC XXI promises to be a superb scientific congress. Located in San Diego, California, a few miles from the Pacific Ocean and a short trip to Mexico, the meeting site combines beautiful surroundings and beaches with a hotel offering excellent meeting and exhibit space for our educational presentations. Submission of abstracts is encouraged in all aspects of cytometry. The ISAC XXI Congress

themes include biological sciences, clinical sciences, and established and emerging cytometric technologies.

You should receive your printed copy of the Call for Abstracts in the mail in the near future.

As a reminder, abstract submissions must be received by no later than Friday, 19 October 2001. The abstract deadline will be strictly enforced. ISAC reserves the right to consider abstracts received after the deadline for poster presentation only. Late abstracts may not be published in the Congress proceedings supplement.

Submissions shall be made via the ISAC XXI Abstract Submission Web site. Full conference information and an on-line registration form will also be available on the ISAC Web site.

Tables and graphical images (GIF and JPEG files types) may be included as part of abstract submissions. Detailed instructions for abstract submission are provided on the Web site. All graphics will appear in black and white in the printed Congress supplement. If it is not possible to submit your abstract electronically, contact Nicki Patti at ISAC headquarters npatti@isac-net.org or 847-205-4722 for instructions regarding alternative submission methods.

The ISAC XXI Abstract Submission Web site can be accessed directly at: <http://ams.cos.com/cgi-bin/conferenceToolkit/displayToolkit?institutionId=694&meetingId=64> <> or go to the ISAC Web site at <http://www.isac-net.org> <>, click on the green Congress button and follow the Call for Abstracts.

Your username and password are below. These are specific to each member and should not be shared. If someone you know would like to submit an abstract, they may do so by using "Create a New Account" and selecting their own username. A password will be supplied to them upon creation of an account. Use this username and password each time you log-in to submit or edit your abstract.

Username: wanabc3529
Password: ca563529

Once logged-in to the ISAC Abstract Management System, click "Submit an Abstract" to begin abstract submission process. On-line instructions will guide you through the process. For assistance with abstract submissions, click the "help desk" link at the top any ISAC Abstract Submission System page.

Highlights of the XXI Congress include our keynote speaker, Nobel Laureate Peter Doherty's presentation, "Visualization of Cell-Mediated Immunity"; four stimulating Frontiers in Science presentations; our Robert Hooke Distinguished Lecture "The Ethics of Human Stem Cell Research" by Lord Robert Winston.; a Symposium on Cytomics, and a Mini-Symposium: Apoptosis and Molecular Therapeutics.

The Congress Organizing Committee will be happy to provide a personal invitation to any scientist making such a request. Such invitations are only to expedite travel and visa arrangements and are not a commitment on the part of ISAC or the Congress Organizing Committee to provide financial support. Call the ISAC office at 847/205-4722 or send an e-mail to:
ISAC@isac-net.org

Please note: ISAC has established a fund for students whose abstracts have been approved for either oral or poster presentation at the International Congress and who require financial aid to attend the Congress. Interested students should submit an application online as part of the abstract submission process. The deadline for student travel fund application submission is the abstract deadline of 19 October 2001.

Eligible ISAC members are encouraged to compete for the ISAC New Investigator/Student Awards. More information about the awards and eligibility requirements is available on the ISAC Web site and as part of the abstract submission system. Interested ISAC members should submit an application online as part of the abstract submission process. The deadline for award application submission is the abstract deadline of 19 October 2001.

We look forward to seeing you in sunny San Diego!

Altra Maintenance Tips Workshop Summary

Presented by:

Keith Caro

Senior Cytometry Specialist

Beckman Coulter Hong Kong Ltd.

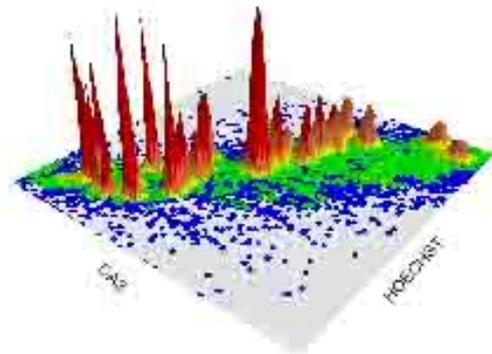


The Altra Maintenance Tips Workshop took place on June 28th at Hong Kong University, at the Immuno-Molecular Biology department. There were many attendees, namely from the Chinese University of Hong Kong and Hong Kong University.

I gave a power point presentation on the recommended maintenance items for the Epics Altra cell sorter. I also covered sorting tips and recommended setup procedures for sorting. The environmental aspects were also pointed out about the laboratory environment as this is fairly critical to sorting. It was recommended that the laboratory temperature is kept below 23 degrees Celsius to maintain stable sorting.

After the presentation, I pointed out the location of all the items on the instrument that would require replacing as part of routine maintenance. After this, we covered alignment and sorting setup. Setting up for a sort involves locating the proper sorting delay value for sorting. I provided an effective and easy way to locate the sorting delay,

using a fiber optic lamp and microscope slide, which showed the beads when the proper delay was located. Many customers appreciated this technique as it shortens the sort setup time considerably. We sorted using the 100 micron tip, sorted 2 different fluorescent populations using ImmunoBrite beads. The re-analysis of the sorted populations showed greater than 99 percent Purity, on both the right and left sides!



We also installed the high speed sorting tip, and found a good sorting frequency and sheath pressure to perform a stable sort. The class ended around 4:30 PM.

Seminar on Flow Applications

Dr. Tom Frey from Becton Dickinson presented information on current trends in leukemia and lymphoma (L&L) typing, as well as some information on recent worldwide L&L consensus studies carried out in collaboration by BD. He also presented some information about new instruments (DiVa, LSR, and SP2) available or in development at BD. Finally, he presented some information on three

application areas being worked on by groups in San Jose.

The first application area discussed was detection of micrometastases or circulating epithelial cells. Epithelial cells can be detected in blood at levels of 1 cell/mL or in bone marrow at similar levels. The method developed at BD uses magnetic pre-enrichment and flow cytometry to detect these cells. The detection of these cells may be useful in understanding the likelihood of metastatic disease in cancer patients, and BD is collaborating with Drs. Laura Esserman and John Park at the University of California at San Francisco to understand how different methods of detection (flow, PCR, image) compare and which may show clinical utility.

The second application area discussed was cytokine flow cytometry (CFC). Drs. Holden Maecker and Skip Maino at BD work with a group of collaborators in this area. They have demonstrated antigen specific responses in CD4+ T-cells for HIV, CMV, and mumps antigens. For example, as expected, only CMV seropositive donors give positive CFC results for CMV antigen. They have also shown that specific CD8+ T-cells can be detected with the use of appropriate antigen preparations. Peptide cocktails spanning the antigen of interest are effective in stimulating CD8+ T-cells and data for CMV pp65 was presented.

The final application area was detection of soluble antigens using cytometric bead arrays (CBA). CBA panels consist of a collection of beads with different levels of FL3. Each bead has a specific capture antibody on it, and a fluorescent antibody can be used to detect the captured antigen. Thus, up to seven immunoassays can

be done simultaneously on a single sample. Dr. Rudi Varro's group at San Jose has been working with Dr. Ed Morgan's group at BD Pharmingen in developing reagents for these applications. Kits for detection of mouse isotypes and for detection of an array of human cytokines were discussed. The BD software for CBA was briefly presented while showing the performance data for the cytokine detection kit.

Council Members 2001

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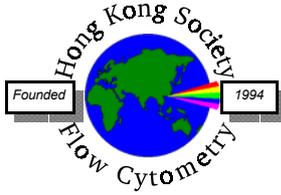
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msleung@cuhk.edu.hk



The Hong Kong Society of Flow Cytometry

Application for Membership / Renewal (2001-2002)

I wish to apply for General Membership of the Hong Kong Society of Flow Cytometry.

Personal Information (Please Print) *[This information will be included in the next membership directory. If you are not willing to disclose this information in the directory, please mark the following box.]*

Title: _____ Name: _____

Place of Work: _____ Institution: _____

Department: _____

Correspondence Address: _____

Tel (Office): _____ Fax: _____

E-mail: _____

MEMBERSHIP PROFILE (Please add info as appropriate)

Degrees:

Field of Study:

- Biological Sciences (Bio)
- Chemical Sciences (Chem)
- Computer Sciences (Comp)
- Medicine (Med)
- Physical Sciences (Phy)
- Other (Oth)
- _____

Clinical / Research:

- Clinical
- Research
- Both

Research Areas:

(Check as many as apply)

- Biochemistry (BC)
- Biophysics (BP)
- Biotechnology (BT)
- Cell & Molecular Biology (CMB)
- Cell Physiology (CP)
- Clinical Research (CR)
- Flow and Image Cytometry (FIC)
- Genetics (GE)
- Immunology (IM)
- Instrumental Development (ID)
- Microbiology (MI)
- Pathology (PA)
- Plant Biology (PB)
- Commercial (CO)
- Other (Oth)
- _____

Flow Cytometry Experience:

Which flow cytometer(s)?

Applications:

Commercial flow cytometry products:

Would you like to be sent up-to-date information on commercial flow products?

Yes No

Suggestions:

Signed:

Date:

Sponsoring Members (for first application only):

Signature 1) _____ 2) _____

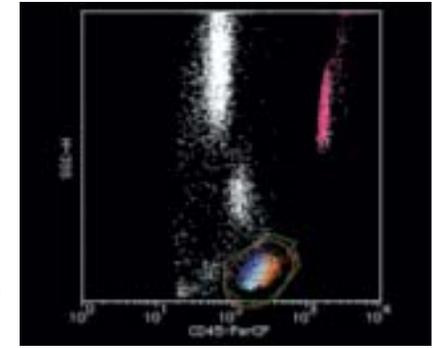
Name (Print) _____ _____

Please return to Ms Yonna Leung, Hon. Treasurer, HKSFC, c/o Haematology Laboratory, Dept of A&C Pathology, Prince of Wales Hospital, Shatin, N.T., Hong Kong SAR, China, together with a cheque of HK\$ 100.00 payable to "Hong Kong Society of Flow Cytometry". If you have difficulties in obtaining sponsorship, leave the space blank and contact one of the office-bearers of the Society.

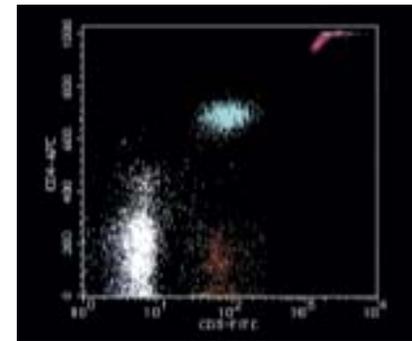
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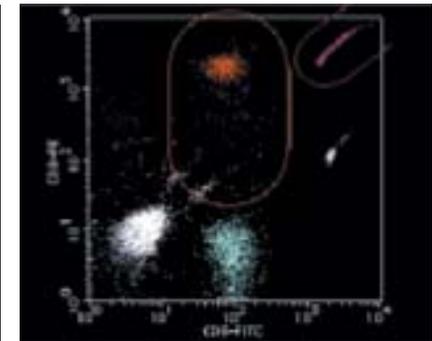
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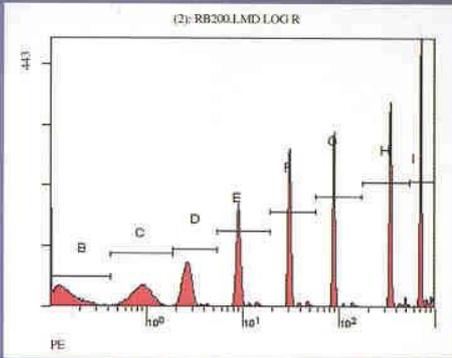
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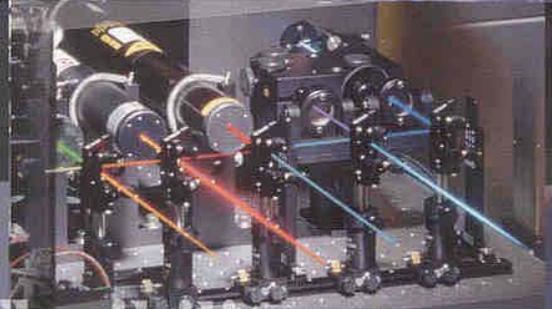
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Speed



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application changes



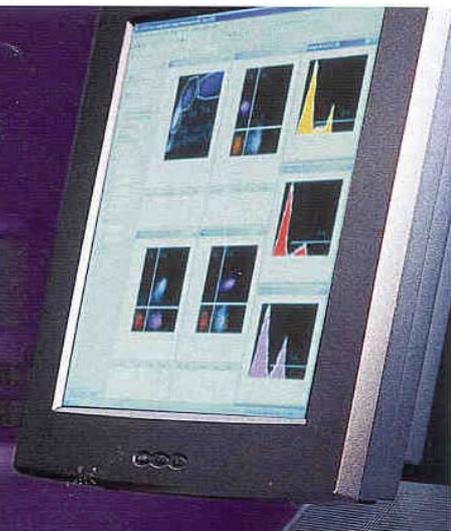
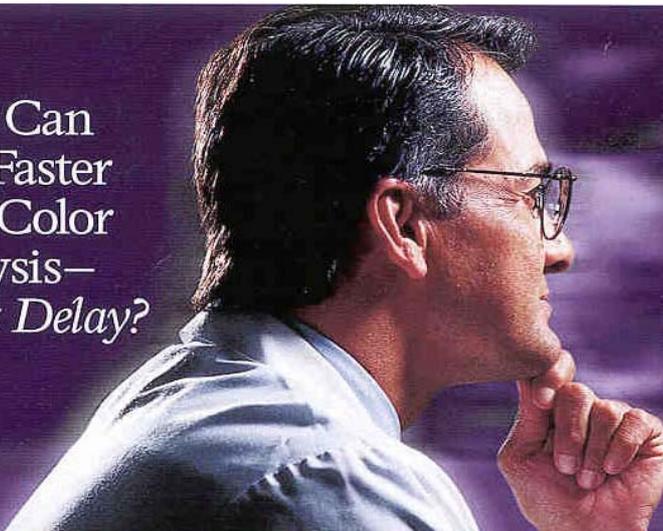
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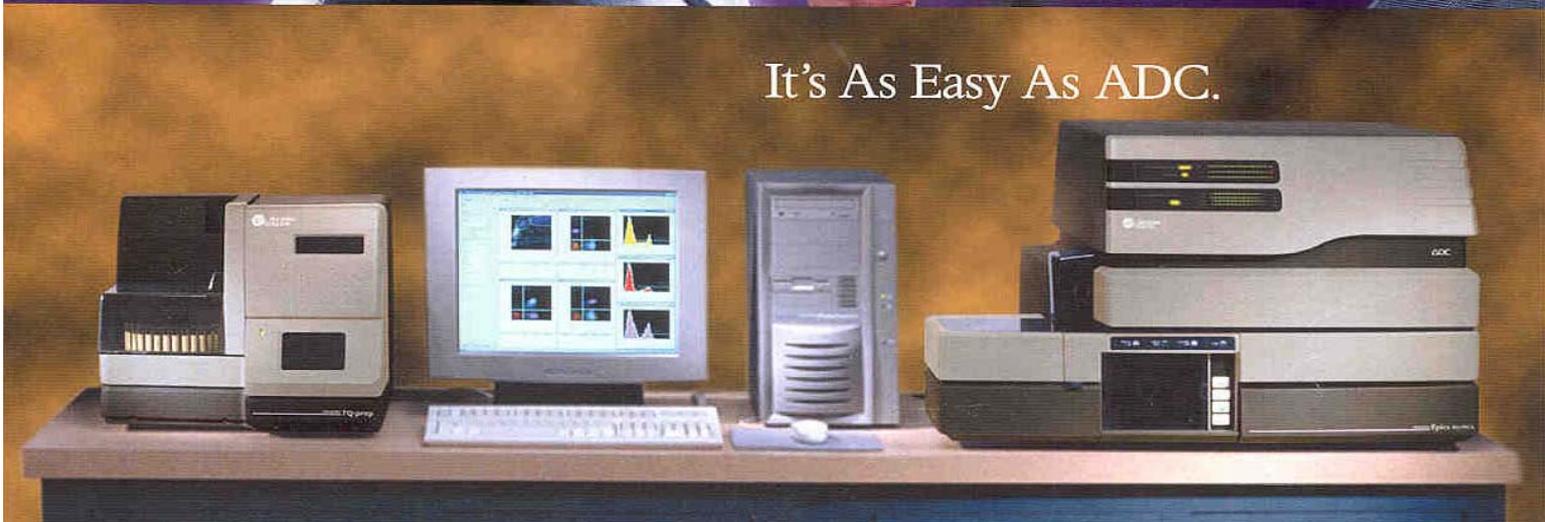
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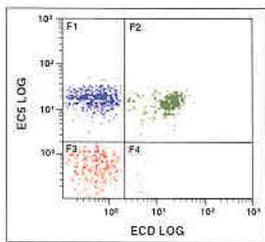
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 set up allows the
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 samples rather
 than latex beads.***

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To learn more about the XL systems with ADC, visit us on the Web at www.beckmancoulter.com/XLADC, or contact your Beckman Coulter representative today. And get the 4-color system you've been waiting for — without further delay.



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