Flow Cytometry: Cancer Center & Children’s Research Institute

**Location:** Medical College of Wisconsin MFRC 5055

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Cancer Center Shared Resources - Flow Cytometry

**News**
We have a new instrument: **LSRFortessa X-20**, 5 laser instrument capable of detecting 18 colors as well as FSC and SSC for a total of 20 parameters. It is configured with a 355nm UV, 405 nm violet, 488 nm blue, 561 nm yellow-green and 640 nm red lasers. This addition to our core allows users to detect more fluorophores in the UV and violet laser channels and also minimize compensation on simple 5-color panels.

**Overview**

**History**
The Medical College of Wisconsin Cancer Center (MCW-CC) and Children’s Research Institute (CRI) shared Flow Cytometry Facility is an advanced technology facility primarily serving investigators at the Medical College and the Children’s Research Institute. The facility provides secondary support to on-campus colleagues at the Blood Research Institute, as well as collaborators off campus at the University of Wisconsin-Milwaukee, Marquette University and the Marshfield Clinic.

The first MCW-CC facility was established in 2000 with support from sources including a NIH Shared Instrumentation Grant, MCW Corporate Support, and the MCW-CC. The CRI facility was established in 2005 with support from the Children’s Foundation. In 2013, the two facilities merged to contain costs and improve access.

Now located on the 5th floor of the MACC Fund Research Center, the reorganized facility provides services to ~60 investigators campus-wide, for a combined total of more than 140 investigators served since 2000. The Children’s Research Institute and the Cancer Center share administrative oversight of the facility.

**Services**
- Help with protocol and assay development and implementation, including selection of antibodies and fluorochromes. Please visit FluoroFinder to see the available instrument configurations and panel compatibility.
• Use of proper staining and compensation controls.
• Selection of appropriate buffers and data analysis.
• For investigators new to flow cytometry, the facility will also help purchase reagents and will assist in all aspects of sample preparation including cell staining, data acquisition and data analysis.

<table>
<thead>
<tr>
<th>Equipment/Software</th>
<th>Accessibility</th>
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<tbody>
<tr>
<td>BD LSRFortessa X-20 Special Order Research Product: 5 laser (18 color &amp; 20 parameter) instrument</td>
<td>Use is available only after training</td>
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<tr>
<td>BD FACSCalibur: 2 laser (4 color &amp; 6 parameter) instrument</td>
<td>Use is available only after training</td>
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<tr>
<td>BD LSR II Special Order System: 4 laser (12 color &amp; 14 parameter) instrument</td>
<td>Use is available only after training</td>
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<tr>
<td>BD FACSARiaIlu Special Order System Cell Sorter - CRI: 4 laser (12 color &amp; 14 parameter) instrument</td>
<td>Facility technicians use on behalf of investigators</td>
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<tr>
<td>BD FACSARiaII Special Order System Cell Sorter - CC: 4 laser (10 color &amp; 12 parameter) instrument</td>
<td>Facility technicians use on behalf of investigators</td>
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<td>FlowJo</td>
<td>Available for open use</td>
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**Hours**: Monday - Friday 8:30 am-5:30 pm.

**Common users of the facility**: Serving all Medical College of Wisconsin investigators and providing back-up services for Blood Research Institute investigators. Occasional services for off-campus users such as Marquette University. Primary users include Children’s Research Institute and Cancer Center members, rheumatology, dermatology, immunology, developmental biology, etc.

**Rates**:

• FACSCalibur $10/hour
• LSR II $25/hour
• LSRFortessa X20 $25/hour
• FACSARiaII (operator only) $50/hour