

FlowCAP Dataset Descriptions

This document briefly describes the purpose of each FlowCAP (<http://flowcap.flowsite.org>) dataset.

Diffuse Large B-cell Lymphoma (DLBCL)

The lymphoma dataset consists of 30 randomly selected lymph node biopsies from patients treated at the British Columbia Cancer Agency between 2003 and 2008. These patients were histologically confirmed to have diffuse large B-cell lymphoma (DLBCL). Cells derived from the lymph nodes were stained for three cell surface markers. This dataset is provided by BCCRC¹.

Symptomatic West Nile Virus (WNV)

These samples are human peripheral blood mononuclear cells from patients with symptomatic West Nile virus infection. They were stimulated in-vitro with peptide pools that roughly represent different regions of the WNV polyprotein. This dataset is provided by the McMaster University².

Normal Donors (ND)

The investigators examined differences in the response of a variety of cell-types to various stimuli for a set of healthy donors. The time-periods were short enough that the surface cell-type markers were not expected to change. The staining panel contains antibodies to surface markers and intracellular proteins. Note that these experiment were done with phosflow-fixed cells, and thus some of the populations are not as distinct or clean, as would be seen with other processing methods. This dataset is provided by Amgen Inc.³.

Hematopoietic Stem Cell Transplant (HSCT)

This dataset contains 30 randomly selected samples derived from hematopoietic stem cell transplant experiments done in the Terry Fox Laboratory. This dataset is provided by BCCRC⁴.

Graft versus Host Disease (GvHD)

12 FCM samples for finding cellular signatures to predict or correlate with early detection of GvHD. This dataset is provided by BCCRC⁵ and Treestar Inc.⁶.

¹Andrew P. Weng: aweng@bccrc.ca

²Jonathan Bramson: bramsonj@mcmaster.ca

³Hugh Rand: rand@amgen.com

⁴Connie Eaves: ceaves@bccrc.ca

⁵Ryan Brinkman: rbrinkman@bccrc.ca

⁶Jill Schoenfeld: jill@treestar.com

Table 1: Dataset description

Dataset	#Samples	#Events	Analyte	Detector	Reporter	Provided By
GvHD	12	14,000	CD4 CD8b CD3 CD8	Anti-CD4 Anti-CD8b Anti-CD3 Anti-CD8	FITC PE PerCP APC	BCCRC & TreeStar
DLBCL	30	5,000	CD3 CD5 CD19	Anti-CD3 Anti-CD5 Anti-CD19	CY5 FITC PE	BCCRC
ND	30	17,000	CD56 CD8 CD45 CD3/CD14	Proprietary Proprietary Proprietary Proprietary Anti-CD56 Proprietary Anti-CD8 Proprietary Anti-CD45 Anti-CD3/CD14	FITC PerCPCy5 PacificBlue PacificOrange Qdot605 APC Alexa700 PE PECy5 PECy7	Amgen
WNV	13	100,000	IFN γ CD3 CD4 IL17 CD8 Free Amines	Anti-IFN γ Anti-CD3 Anti-CD4 Anti-IL17 Anti-CD8 NA	PEA PECy5 PECy7 APC AlexaFluor700 CFSE	McMaster
HSCT	30	10,000	CD45.1 Ly65/Mac1 Dead Cells CD45.2	Anti-CD45.1 Anti-Ly65/Mac1 NA Anti-CD45.2	FITC PE PI APC	BCCRC