

Supplementary Table 1. Details of the pre- and post-classification results

Appendix 1–1. Samples containing NRBC

		User classification (Post-classification)													Total
		NE	ME	MY	PR	LY	LV	MO	EO	BA	BL	PC	NR	AR	
UIMD-PBIA (Pre-classification)	NE	2,709	0	0	0	1	0	1	0	0	0	0	0	2	2,713
	ME	52	365	0	0	1	0	7	1	0	0	0	0	0	426
	MY	0	1	271	0	0	0	5	0	0	1	0	2	1	281
	PR	0	0	0	83	0	0	2	0	0	0	0	0	3	88
	LY	1	0	0	0	1,246	0	0	0	0	0	0	5	16	1,268
	LV	0	0	0	0	1	8	0	0	0	0	0	0	0	9
	MO	14	7	9	0	5	0	540	0	0	0	0	0	0	575
	EO	0	0	0	0	0	0	0	68	0	0	0	0	0	68
	BA	2	0	0	1	0	0	0	0	82	0	0	0	4	89
	BL	0	1	0	1	17	3	15	0	1	284	0	1	7	330
	PC	0	0	0	0	0	0	0	0	0	1	5	3	0	9
	NR	1	5	0	0	1	0	0	1	0	0	0	665	5	678
	AR	54	1	1	0	3	0	2	0	2	0	0	9	962	1,034
	Total	2,833	380	281	85	1,275	11	572	70	85	286	5	685	1,000	7,568

Abbreviations: NE, neutrophil; ME, metamyelocyte; MY, myelocyte; PR, promyelocyte; LY, lymphocyte; LV, abnormal lymphocyte; MO, monocyte; EO, eosinophil; BA, basophil; BL, blast; PC, plasma cell; NR, nucleated RBC; AR, reactive lymphocyte.

Appendix 1–2. Samples with pancytopenia

		User classification (Post-classification)													Total
		NE	ME	MY	PR	LY	LV	MO	EO	BA	BL	PC	NR	AR	
UIMD-PBIA (Pre-classification)	NE	421	0	0	0	0	0	0	0	0	0	0	0	0	421
	ME	8	40	0	0	0	0	1	0	0	0	0	0	1	50
	MY	0	0	4	0	1	0	1	1	0	2	0	0	0	9
	PR	0	0	0	7	0	0	0	0	0	0	0	0	1	8
	LY	0	0	0	0	1,165	0	0	0	0	1	0	0	2	1,168
	LV	0	0	0	0	0	2	0	0	0	0	0	0	0	2
	MO	0	0	0	0	0	0	104	0	0	0	0	0	0	104
	EO	0	0	0	0	0	0	0	41	0	0	0	0	0	41
	BA	0	0	0	0	0	0	0	0	6	0	0	0	2	8
	BL	0	0	0	0	5	0	1	1	0	161	0	0	2	170
	PC	0	0	0	0	0	0	0	0	0	0	7	0	0	7
	NR	0	0	0	0	1	0	0	0	0	0	0	17	2	20
	AR	10	1	0	0	9	0	1	0	0	4	0	0	448	473
	Total	439	41	4	7	1,181	2	108	43	6	168	7	17	458	2,481

Abbreviations: NE, neutrophil; ME, metamyelocyte; MY, myelocyte; PR, promyelocyte; LY, lymphocyte; LV, abnormal lymphocyte; MO, monocyte; EO, eosinophil; BA, basophil; BL, blast; PC, plasma cell; NR, nucleated RBC; AR, reactive lymphocyte.

Appendix 1–3. Samples with dysgranulopoiesis: neoplastic

	User classification (Post-classification)													
	NE	ME	MY	PR	LY	LV	MO	EO	BA	BL	PC	NR	AR	Total
UIMD-PBUA (Pre-classification)														
NE	282	0	0	0	0	0	0	0	0	0	0	0	0	282
ME	2	16	0	0	0	0	0	0	0	0	0	0	0	18
MY	0	0	11	0	0	0	3	0	0	0	0	0	0	14
PR	0	0	0	1	0	0	1	0	0	0	0	0	0	2
LY	1	0	0	0	414	0	0	0	0	0	0	0	1	416
LV	0	0	0	0	0	3	0	0	0	0	0	0	0	3
MO	1	0	1	0	0	0	82	0	0	0	0	0	0	84
EO	0	0	0	0	0	0	0	31	0	0	0	0	0	31
BA	0	0	0	0	0	0	0	0	5	0	0	0	0	5
BL	0	0	0	0	5	0	1	0	0	110	0	0	1	117
PC	0	0	0	0	0	0	0	0	0	0	2	0	0	2
NR	0	0	0	0	0	0	0	0	0	0	0	39	0	39
AR	16	1	0	0	1	0	1	0	0	0	0	0	244	263
Total	302	17	12	1	420	3	88	31	5	110	2	39	246	1,276

Abbreviations: NE, neutrophil; ME, metamyelocyte; MY, myelocyte; PR, promyelocyte; LY, lymphocyte; LV, abnormal lymphocyte; MO, monocyte; EO, eosinophil; BA, basophil; BL, blast; PC, plasma cell; NR, nucleated RBC; AR, reactive lymphocyte.

Appendix 1–4. Samples with dysgranulopoiesis: reactive

	User classification (Post-classification)													
	NE	ME	MY	PR	LY	LV	MO	EO	BA	BL	PC	NR	AR	Total
UIMD-PBUA (Pre-classification)														
NE	528	0	0	0	0	0	0	0	0	0	0	0	0	528
ME	11	35	0	0	0	0	1	0	0	0	0	0	0	47
MY	0	0	12	0	1	0	0	0	0	0	0	0	0	13
PR	0	0	0	2	0	0	0	0	0	0	0	0	0	2
LY	0	0	0	0	173	0	0	0	0	0	0	0	0	173
LV	0	0	0	0	0	1	0	0	0	0	0	0	0	1
MO	0	0	0	0	0	0	72	0	0	0	0	0	0	72
EO	0	0	0	0	0	0	0	22	0	0	0	0	0	22
BA	0	0	0	0	0	0	0	0	4	0	0	0	0	4
BL	0	0	0	0	4	2	3	0	0	123	0	0	1	133
PC	0	0	0	0	0	0	0	0	0	0	3	0	0	3
NR	0	0	0	0	0	0	0	0	0	0	0	12	1	13
AR	18	1	0	0	2	0	0	0	0	0	0	0	198	219
Total	557	36	12	2	180	3	76	22	4	123	3	12	200	1,230

Abbreviations: NE, neutrophil; ME, metamyelocyte; MY, myelocyte; PR, promyelocyte; LY, lymphocyte; LV, abnormal lymphocyte; MO, monocyte; EO, eosinophil; BA, basophil; BL, blast; PC, plasma cell; NR, nucleated RBC; AR, reactive lymphocyte.

Appendix 1-5. Samples containing <10% neutrophil precursor

		User classification (Post-classification)													Total
		NE	ME	MY	PR	LY	LV	MO	EO	BA	BL	PC	NR	AR	
UIMD-PBUA (Pre-classification)	NE	632	0	0	0	0	0	0	0	0	0	0	0	0	632
	ME	6	21	0	0	0	0	1	0	0	0	0	0	0	28
	MY	0	0	56	0	0	0	0	0	0	0	0	0	1	57
	PR	0	0	0	5	0	0	0	0	0	0	0	0	0	5
	LY	0	0	0	0	145	0	0	0	0	0	0	0	0	145
	LV	0	0	0	0	0	1	0	0	0	0	0	0	0	1
	MO	0	0	0	0	0	0	116	0	0	0	0	0	0	116
	EO	0	0	0	0	0	0	0	18	0	0	0	0	0	18
	BA	0	0	0	0	0	0	0	0	9	0	0	0	1	10
	BL	0	0	0	0	4	0	2	0	0	5	0	0	0	11
	PC	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	NR	1	0	0	0	0	0	0	0	0	0	0	9	0	10
	AR	13	0	0	0	1	0	1	0	0	0	0	0	138	153
	Total	652	21	56	5	150	1	120	18	9	5	0	9	141	1,187

Abbreviations: NE, neutrophil; ME, metamyelocyte; MY, myelocyte; PR, promyelocyte; LY, lymphocyte; LV, abnormal lymphocyte; MO, monocyte; EO, eosinophil; BA, basophil; BL, blast; PC, plasma cell; NR, nucleated RBC; AR, reactive lymphocyte.

Appendix 1-6. Samples containing ≥10% neutrophil precursor

		User classification (Post-classification)													Total
		NE	ME	MY	PR	LY	LV	MO	EO	BA	BL	PC	NR	AR	
UIMD-PBUA (Pre-classification)	NE	475	0	0	0	0	0	0	0	0	0	0	0	0	475
	ME	10	137	0	0	0	0	3	0	0	0	0	0	0	150
	MY	0	0	150	0	0	0	2	0	0	0	0	0	0	152
	PR	0	0	0	11	0	0	1	0	0	0	0	0	0	12
	LY	0	1	0	0	85	0	0	0	0	0	0	0	0	86
	LV	0	0	0	0	1	4	0	0	0	0	0	0	0	5
	MO	2	0	0	0	0	0	104	0	0	0	0	0	0	106
	EO	0	0	0	0	0	0	0	5	0	0	0	0	0	5
	BA	0	0	0	1	0	0	0	0	15	0	0	0	0	16
	BL	0	0	0	0	0	1	2	0	0	19	0	0	1	23
	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NR	0	0	0	0	0	0	0	0	0	0	0	4	0	4
	AR	5	1	3	0	0	0	0	0	0	0	0	0	105	114
	Total	492	139	153	12	86	5	112	5	15	19	0	4	106	1,148

Abbreviations: NE, neutrophil; ME, metamyelocyte; MY, myelocyte; PR, promyelocyte; LY, lymphocyte; LV, abnormal lymphocyte; MO, monocyte; EO, eosinophil; BA, basophil; BL, blast; PC, plasma cell; NR, nucleated RBC; AR, reactive lymphocyte.

Appendix 1–7. Samples containing myeloblasts and/or monoblasts

		User classification (Post-classification)												Total	
		NE	ME	MY	PR	LY	LV	MO	EO	BA	BL	PC	NR		AR
UIMD-PBUA (Pre-classification)	NE	420	0	0	0	0	0	0	0	0	0	0	0	1	421
	ME	14	21	0	0	0	0	3	0	0	1	0	0	1	40
	MY	0	0	31	0	3	0	5	0	0	2	0	0	0	41
	PR	0	0	0	22	0	0	1	0	0	0	0	0	0	23
	LY	1	0	1	0	200	0	0	0	0	6	0	0	0	208
	LV	0	0	0	0	0	3	1	0	0	10	0	0	0	14
	MO	1	1	0	0	0	0	261	0	0	3	0	0	0	266
	EO	0	0	0	0	0	0	0	20	0	0	0	0	0	20
	BA	2	0	0	0	0	0	1	0	14	0	0	0	0	17
	BL	4	0	0	0	1	0	1	0	0	949	0	0	3	958
	PC	0	0	0	0	0	0	0	0	0	0	2	0	0	2
	NR	1	0	0	0	0	0	0	0	0	0	0	19	0	20
	AR	28	2	0	0	0	0	2	0	0	5	0	0	485	522
	Total	471	24	32	22	204	3	275	20	14	976	2	19	490	2,552

Abbreviations: NE, neutrophil; ME, metamyelocyte; MY, myelocyte; PR, promyelocyte; LY, lymphocyte; LV, abnormal lymphocyte; MO, monocyte; EO, eosinophil; BA, basophil; BL, blast; PC, plasma cell; NR, nucleated RBC; AR, reactive lymphocyte.

Appendix 1–8. Samples containing lymphoblasts

		User classification (Post-classification)												Total	
		NE	ME	MY	PR	LY	LV	MO	EO	BA	BL	PC	NR		AR
UIMD-PBUA (Pre-classification)	NE	400	0	0	0	0	0	0	0	0	0	0	0	0	400
	ME	2	36	0	0	0	0	0	2	0	0	0	0	0	40
	MY	0	0	31	0	0	0	1	1	0	0	0	0	0	33
	PR	0	0	0	7	0	0	0	0	0	0	0	0	0	7
	LY	1	0	0	0	369	0	0	0	0	10	0	0	2	382
	LV	0	0	0	0	0	3	0	0	0	1	0	0	0	4
	MO	1	0	0	0	1	0	34	0	0	0	0	0	0	36
	EO	0	0	0	0	0	0	0	21	0	0	0	0	0	21
	BA	0	0	0	0	0	0	0	0	9	1	0	0	1	11
	BL	0	0	0	0	4	0	0	0	0	575	0	0	2	581
	PC	0	0	0	0	0	0	0	0	0	1	2	1	0	4
	NR	0	0	0	0	0	0	0	0	0	0	0	15	0	15
	AR	4	0	0	0	4	0	0	0	0	5	0	0	324	337
	Total	408	36	31	7	378	3	35	24	9	593	2	16	329	1,871

Abbreviations: NE, neutrophil; ME, metamyelocyte; MY, myelocyte; PR, promyelocyte; LY, lymphocyte; LV, abnormal lymphocyte; MO, monocyte; EO, eosinophil; BA, basophil; BL, blast; PC, plasma cell; NR, nucleated RBC; AR, reactive lymphocyte.

Appendix 1–9. Samples containing mature B cell neoplasm

		User classification (Post-classification)													Total
		NE	ME	MY	PR	LY	LV	MO	EO	BA	BL	PC	NR	AR	
UIMD-PBUA (Pre-classification)	NE	257	0	0	0	0	0	0	0	0	0	0	0	0	257
	ME	32	1	0	0	0	0	0	0	0	0	0	0	0	33
	MY	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	PR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	LY	0	0	0	0	991	0	0	0	0	0	0	0	1	992
	LV	0	0	0	0	63	10	0	0	0	0	0	0	0	73
	MO	0	0	0	0	1	1	52	0	0	0	0	0	0	54
	EO	0	0	0	0	1	0	2	34	0	0	0	0	0	37
	BA	0	0	0	0	0	0	0	2	5	0	0	0	0	7
	BL	0	0	0	0	9	0	2	0	0	49	0	0	1	61
	PC	0	0	0	0	1	0	0	0	0	0	0	0	1	2
	NR	0	0	0	0	0	0	0	0	0	0	1	0	0	1
	AR	1	0	0	0	27	0	1	0	0	3	0	0	312	344
	Total	258	1	1	0	1,028	11	55	34	5	52	0	0	319	1,764

Abbreviations: NE, neutrophil; ME, metamyelocyte; MY, myelocyte; PR, promyelocyte; LY, lymphocyte; LV, abnormal lymphocyte; MO, monocyte; EO, eosinophil; BA, basophil; BL, blast; PC, plasma cell; NR, nucleated RBC; AR, reactive lymphocyte.

Appendix 1–10. Samples containing mature T cell neoplasm

		User classification (Post-classification)													Total
		NE	ME	MY	PR	LY	LV	MO	EO	BA	BL	PC	NR	AR	
UIMD-PBUA (Pre-classification)	NE	79	0	0	0	0	0	0	0	0	0	0	0	0	79
	ME	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	MY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	LY	1	0	0	0	455	0	0	1	0	0	0	0	2	459
	LV	0	0	0	0	0	11	0	0	0	0	0	0	1	12
	MO	0	0	0	0	0	3	14	0	0	0	0	0	0	17
	EO	0	0	0	0	0	0	0	10	0	0	0	0	0	10
	BA	0	0	0	0	0	0	0	0	4	0	0	0	0	4
	BL	1	0	0	0	5	3	0	0	0	10	0	0	5	24
	PC	0	0	0	0	0	0	0	0	0	0	6	0	1	7
	NR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	AR	1	0	0	0	4	0	1	0	0	0	0	0	490	496
	Total	82	1	0	0	464	17	15	11	4	10	6	0	499	1,109

Abbreviations: NE, neutrophil; ME, metamyelocyte; MY, myelocyte; PR, promyelocyte; LY, lymphocyte; LV, abnormal lymphocyte; MO, monocyte; EO, eosinophil; BA, basophil; BL, blast; PC, plasma cell; NR, nucleated RBC; AR, reactive lymphocyte.

Appendix 1–11. Samples containing plasma cell and/or reactive lymphocytes

		User classification (Post-classification)													Total
		NE	ME	MY	PR	LY	LV	MO	EO	BA	BL	PC	NR	AR	
UIMD-PBUA (Pre-classification)	NE	518	0	0	0	0	0	0	0	0	0	0	0	0	518
	ME	7	25	0	0	0	0	0	0	0	0	0	0	0	32
	MY	0	0	16	0	1	0	1	0	0	0	1	0	0	19
	PR	0	0	0	1	0	0	0	0	0	0	0	0	0	1
	LY	0	0	0	0	482	5	0	0	0	0	7	0	2	496
	LV	0	0	0	0	0	11	0	0	0	0	0	0	0	11
	MO	0	2	1	0	2	1	122	0	0	0	2	0	0	130
	EO	0	0	0	0	0	0	0	33	0	0	0	0	0	33
	BA	0	0	0	0	0	0	0	0	4	0	0	0	0	4
	BL	0	0	0	0	13	2	0	0	0	39	6	0	2	62
	PC	0	0	0	0	0	0	0	0	0	0	228	1	0	229
	NR	1	0	0	0	0	0	0	0	0	0	1	9	0	11
	AR	16	0	0	0	2	1	0	0	0	0	2	0	216	237
	Total	542	27	17	1	500	20	123	33	4	39	247	10	220	1,783

Abbreviations: NE, neutrophil; ME, metamyelocyte; MY, myelocyte; PR, promyelocyte; LY, lymphocyte; LV, abnormal lymphocyte; MO, monocyte; EO, eosinophil; BA, basophil; BL, blast; PC, plasma cell; NR, nucleated RBC; AR, reactive lymphocyte.

Appendix 1–12. Normal samples

		User classification (Post-classification) Normal samples													Total
		NE	ME	MY	PR	LY	LV	MO	EO	BA	BL	PC	NR	AR	
UIMD-PBUA (Pre-classification)	NE	2,758	0	0	0	0	0	0	0	0	0	0	0	0	2,758
	ME	0	1	0	0	1	0	0	0	0	0	0	0	1	3
	MY	0	0	3	0	0	0	0	0	0	0	0	0	1	4
	PR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	LY	2	0	0	0	1,888	0	1	0	0	0	0	0	0	1,891
	LV	0	0	0	0	0	6	0	0	0	0	0	0	0	6
	MO	1	0	0	0	1	1	279	0	0	0	0	0	0	282
	EO	1	0	0	0	0	0	0	129	0	0	0	0	0	130
	BA	1	0	0	0	0	0	0	0	39	0	0	0	1	41
	BL	0	0	0	0	10	1	2	0	0	0	0	0	1	14
	PC	0	0	0	0	0	0	1	0	0	0	5	0	0	6
	NR	1	0	0	0	1	0	0	0	0	0	0	0	1	3
	AR	21	0	0	0	0	0	0	1	3	0	0	0	369	394
	Total	2,785	1	3	0	1,901	8	283	130	42	0	5	0	374	5,532

Abbreviations: NE, neutrophil; ME, metamyelocyte; MY, myelocyte; PR, promyelocyte; LY, lymphocyte; LV, abnormal lymphocyte; MO, monocyte; EO, eosinophil; BA, basophil; BL, blast; PC, plasma cell; NR, nucleated RBC; AR, reactive lymphocyte.

Appendix 1–13. Abnormal samples

		User classification (Post-classification) Abnormal samples													Total
		NE	ME	MY	PR	LY	LV	MO	EO	BA	BL	PC	NR	AR	
UIMD-PBUA (Pre-classification)	NE	6,753	0	0	0	1	0	1	0	0	0	0	0	3	6758
	ME	112	698	0	0	1	0	16	3	0	1	0	0	2	833
	MY	0	1	583	0	6	0	18	2	0	5	1	2	2	620
	PR	0	0	0	139	0	0	5	0	0	0	0	0	4	148
	LY	5	1	1	0	5,788	5	0	1	0	17	7	5	26	5856
	LV	0	0	0	0	2	58	1	0	0	11	0	0	1	73
	MO	19	10	11	0	10	5	1,503	0	0	3	2	0	0	1563
	EO	0	0	0	0	0	0	0	305	0	0	0	0	0	305
	BA	4	0	0	2	0	0	1	0	157	1	0	0	8	173
	BL	5	1	0	1	68	11	27	1	1	2,324	6	1	26	2472
	PC	0	0	0	0	0	0	0	0	0	2	256	5	2	265
	NR	4	5	0	0	2	0	0	1	0	0	1	789	8	810
	AR	166	7	4	0	53	1	9	0	2	17	2	9	3,927	4197
	Total	7,068	723	599	142	5,931	80	1,581	313	160	2,381	275	811	4,009	24,073

Abbreviations: NE, neutrophil; ME, metamyelocyte; MY, myelocyte; PR, promyelocyte; LY, lymphocyte; LV, abnormal lymphocyte; MO, monocyte; EO, eosinophil; BA, basophil; BL, blast; PC, plasma cell; NR, nucleated RBC; AR, reactive lymphocyte.