Objectives

## PATHON COMMUNICATION CONTROL TO A CONTROL	Туре	Use	Model	Immersion	NA	W.D. (mm)	Cover glass	Correction ring	Spring loaded	Brightfield	Darkfield	DIC	Phase contrast	Polarizing	Fluoresco	ence UV	Ti2-E PFS
Marie Street Mari			4X		0.10	30.00	thickness			0				Δ		0 0	
## MYSTARLEFT MESSAGE 1.0			10X		0.25	7.00	_			0	Δ			Δ	0		
Marie Color			LWD 20X		0.40	3.90	0.17			0	0•			Δ	0		
Marie Mari		Brightfield (CEI)	40X		0.65	0.65	0.17		✓	0	0•			Δ	0		
Month		- · · g · · · · · · · · · · · · · · · ·				2.70-1.70	0-2.00	1		9	0•			Δ	0		ــــــ
Months Control Contr											•						ــــــ
Marchand																	-
### Past orgin (FF)				Oil							0•			 			├─
### Manage CFT M																	├─
## PARCE 1.00		Polarizina (CEI)													_		├─
Marcoland		r dianzing (or i)							./						_		
March Color Colo				Oil						_							
March control (CFT) CFT										0	Δ		⊚ PH1				
More control (CFT)							0.17			0	0•			Δ	Δ		
MODE-Sect Color	mat		LWD DL 20XF		0.40		1.20			0			⊚ PH1	Δ	Δ		
MODE-Sect Color	chro	Phase contrast (CFI)	DL 40X		0.65	0.65	0.17		1	0	0•		⊚ PH2	Δ	Δ		
## March Mar	∢		LWD DL 40XC		0.55	2.70-1.70	0-2.00	/		0	0•		⊚ PH2	Δ	Δ		
## Approximate CFT Plan ## Approximate CFT Pl			DL 100X Oil	Oil	1.25	0.23	0.17		/	0			⊚ PH3	Δ	Δ		
Mode and place contract (CF) Mode (Rev)			BM 10X		0.25	7.00	0.17			0			⊚ PH1	Δ	Δ		
Mode Company			ADL 10XF		0.25	6.20	1.20			0			⊚ PH1	Δ	Δ		
March Marc		Anodized phase contract (CEI)	LWD ADL 20XF		0.40	3.10	1.20			0			⊚ PH1	Δ	Δ		
Marchine control (CF) Marchine (CF) Marc		, podržed priase coritiast (CFI)	LWD ADL 40XF		0.55	2.10	1.20			0			⊚ PH1	Δ	Δ		
American decomposition (PT Plane) Wilson Mark 2007 0.60 0.40 0.70 0.20 0.70 0					0.55	2.70-1.70	0-2.00	1		0	0•		® PH2	Δ	Δ		
March Marc					0.25	6.20	1.20			0					Δ		
Magnifield (CF) Plane Magn		Advanced modulation contrast (CFI)			0.40	3.10	1.20			0					Δ		
Page			LWD NAMC 40XC		0.55	2.70-1.70	0-2.00	/		0					Δ		
Marie Mari			4X		0.10	25.00	-			0							
For YSHOUNT LED		Brightfield (CE)	10X		0.25	5.60	-			0							
March Marc						0.60	0.17		1	0							
March Marc			60X		0.80	0.24	0.17		✓	0							
Marting CFT Plane CFT Pl				Oil	1.25	0.14	0.17		✓	0							
Marches Marc			1X		0.04	3.20	_			0				Δ	Δ		
Brightist CPI Plan					0.06	7.50	_			9				Δ	Δ		
March Marc						30.00	_			9				Δ	0		
Mode		Brightfield (CFI Plan)			0.25	10.50	_			9	Δ			Δ	0		
March Section CPT Plans Control CPT					0.40	1.20	0.17			9	0•			Δ	0		
Marchine 1900 10 12 12 12 12 12 12					0.65	0.56	0.17		/	0	0•			Δ	0		ـــــــ
Page Contract (CFI Plan)										0	•			Δ	0		ــــــ
Plase contrast (CFI Plan) Place contrast (CFI P				Oil			0.17			0				Δ	0		<u> </u>
Philase contents (CPI Paris) DL (XX)							_			_							
Mail Corner glass NG SIXX		Phase contrast (CFI Plan)															—
December plass Corp plass											0•						—
For E100 DL 100X OI	at			Oil									® PH3				—
For E100 DL 100X OI	Tor																—
For E100 DL 100X OI	Acl	(CFI Flail)							<i></i>		•		5111	Δ	0	Δ	<u> </u>
For E100 DL 100X ON OI 1.25 O.14 O.17	Plar	Phase contrast (CFI BE Plan)							,								├
A				0													├
Berightfield (CFI BE Plan) For E10.				Oil									® PH3				—
Brightfield (CFI SE Plan) For E100 ADX																	—
For E100 GOX		Prightfield (CELDE DI)		 								\vdash					\vdash
For E200				 								\vdash					\vdash
Miles CEF Plan												\vdash					\vdash
Minimal Mini				Oil								\vdash					\vdash
Bighfield (CFI E Plan) For E200 For E2				<u> </u>										Δ	0		
For E200 40X 100X Oil 0il 1.25 0.23 0.17 ✓ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Brighfield (CFI E Plan)									Δ	\vdash					
MSI (CFI Plan) LWD IMSI 10XC 0.85 1.30-0.95 (1.15 ') 0.06-1.30									/								
MSI (CFI Plan)				Oil													
Brightfield (CFI S Plan Fluor) ELWD 20XC 0.45 8.20-6.90 (7.40 '2) 0.2.00 ✓ 0 0 0 0 0 0 0 0		IMSI (CFI Plan)						/		0	•	0					
Brightfield (CFI S Plan Fluor) ELWD 40XC 0.60 3.60-2.80 (3.11 '2) 0.2.00 V 0 0 0 0 0 0 0 0											0•	_				0	•
ELWD 60XC 0.70 2.60-1.80 (2.19 '3) 0.10-1.30 ✓ 0 0 0 0 0 0 0 0		Brightfield (CFI S Plan Fluor)								0	0•	0		0	0	0	•
Page	5							/		0	0•	0		0	0	0	
Advanced modulation contrast (CFI S Plan Fluor) ELWD NAMC 20XC ELWD NAMC 20XC D.60 S.60-2.80 (3.10 '2) D.20 D.50 D.75 D.00 D.17 D.00	Fluc	A	ELWD ADM 20XC		0.45		0-2.00	1		0	0•		® PH1		0	0	•
Advanced modulation contrast (CFI S Plan Fluor) ELWD NAMC 20XC ELWD NAMC 20XC D.60 S.60-2.80 (3.10 '2) D.20 D.50 D.75 D.00 D.17 D.00	Plan		ELWD ADM 40XC		0.60		0-2.00	/		0	0•		® PH2		0	0	•
CFI S Plan Fluor) ELWD NAMC 40XC 0.60 3.60-2.80 (3.10 *2) 0-2.00	S	2.101141007	ELWD ADL 60XC		0.70	2.60-1.80 (1.85 *2)	0.10-1.30	1		0	0•		® PH2		0	0	
CFI S Plan Fluor) ELWD NAMC 40XC 0.60 3.60-2.80 (3.10 *2) 0-2.00 ✓ ○ ○ ○ ○ ○ ○ ○ ○ ○			ELWD NAMC 20XC		0.45	8.20-6.90 (7.40 *2)	0-2.00	1		0					0	0	
Brightfield (CFI Super Fluor) ON ON ON ON ON ON ON O			ELWD NAMC 40XC		0.60	3.60-2.80 (3.10 *2)	0-2.00	1		0					0	0	
Brightfield (CFI Super Fluor) Page CFI Super Fluor Page			4X		0.20	15.50	_			0				Δ	8	® 340	•
No cover glass polarizing (TU Plan Fluor EPI) Pox O.80 O	J.				0.50	1.20	0.17		1	0	0•	0		Δ	0	® 340	•
No cover glass polarizing (TU Plan Fluor EPI) Pox O.80 O	Fluc		20X		0.75	1.00	0.17		/	9	0•	0		Δ	8	® 340	•
No cover glass polarizing (TU Plan Fluor EPI) Pox O.80 O	nber	(CFI Super Fluor)	40XC		0.90	0.34-0.26 (0.30 *4)	0.11-0.23	1	/	9	•	0		Δ	0	⊚ 340	
P 5X 0.15 23.50 0	Ō		40X Oil	Oil	1.30	0.22	0.17		✓ w/stopper	9		0	EXT PH3-40X	Δ	0	⊚ 340	•
No cover glass polarizing (TU Plan Fluor EPI) P 10X 0.30 17.50 0 0 0 0 0 0 0 0 0				Oil		0.20	0.17		1	0	0•			Δ	0	⊚ 340	
No cover glass polarizing (TU Plan Fluor EPI) P 10X 0.30 17.50 0 0 0 0 0 0 0 0 0 0 0 0	<u>_</u>				0.15	23.50	0			0				9	0	0	
P 20X 0.45 4.50 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	l Pla	No cover glace a desiria			0.30	17.50	0			0	0			9	0	0	
P 50X 0.80 1.00 0	ersa				0.45	4.50	0			0	0			9	0	0	
P 100X 0.90 1.00 0 √ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Jnive									9				9	0	0	$oxed{\Box}$
	_		P 100X		0.90	1.00	0		✓	0				8	9	0	

Note 1. Model name

The below letters, when included in the model names, indicate the respective features.

F: for use with 1.2mm-thick cover glass C: with correction ring

AC: with correction ring compatible with Auto Correction Collar

NCG: for use without cover glass

S: with iris

WI: water immersion type W: water dipping type

Mi: multi immersion (oil, water, glycerin) type

IMSI: compatible with IMSI only

DS: compatible with dispersion staining microscopy

Note 2. Cover glass thickness

— : can be used without cover glass 0: use without cover glass

Note 3. Darkfield microscopy

Possible with the following Δ : universal condenser (dry) and darkfield ring

O : above and darkfield condenser (dry) : darkfield condenser (oil)

Note 4. Phase rings are classified by objective NA PHL, PH1, PH2, PH3: condenser cassette modules. EXT PH3, EXT PH4: external phase contrast modules for Ti2-E. Note 5. Fluorescence microscopy (UV)

 Δ : possible with visible light that has a longer wavelength than the excitation light used for DAPI

O : suitable

: recommended for best results

340: high transmittance with an ultraviolet wavelength range of

up to 340nm

Туре	Use	Model	Immersion	NA	W.D. (mm)	Cover glass thickness	Correction ring	Spring loaded	Brightfield	Darkfield	DIC	Phase contrast	Polarizing	Fluoresc Visible light	ence	NIR
		4X		0.13	17.20	-			0				Δ	0	0	\neg
		10X		0.30	16.00	0.17			0	Δ	0		0	0	0	\Box
		20X		0.50	2.10	0.17			0	0•	0		0	0	0	
		20XC MI	Water, Glycerin, Oil	0.75	0.49-0.33 0.51-0.34 0.51-0.35	0-0.17	1	1	0	0•	0		0	0	0	
	Brightfield	40X	Oii	0.75	0.66	0.17		/	0	0•	0		0	0	0	\dashv
	(CFI Plan Fluor)	40X Oil	Oil	1.30	0.24	0.17		✓ w/stopper	0		0	EXT PH3-40X	0	0	0	\dashv
			0"			0.11-0.23	/					271110 107				
		60XC 60XS Oil	Oil	0.85 0.50-1.25	0.40-0.31 (0.35 *4) 0.22	0.11-0.23		1	0	0.	0	EXT PH3-60X	0	0	0	
		100X Oil	Oil	1.30	0.16	0.17		✓ w/stopper	0				0	0	0	
											0					
		100XS Oil	Oil	0.50-1.30	0.16 16.50	0.17 1.20		/	0	0•	0	o PHL	0	0	0	
		DL 4XF		0.13	16.00	0.17			0			o PH1		0	_	
		DLL 10X DL 10XF		0.30	15.20	1.20		-	0	Δ		o PH1		0	0	
		DLL 20X		0.50	2.10	0.17			0	0.		o PH1		0	0	
	Phase contrast	DLL 40X		0.75	0.66	0.17		/	0	0.		© PH2		0	0	_
	(CFI Plan Fluor)	DLL 100X Oil	Oil	1.30	0.16	0.17		✓ w/stopper	0			o PH3		0	0	
		DM 40X		0.75	0.66	0.17		1	0	0•		o PH2		0	0	_
		BM 40X		0.75	0.66	0.17		1	0	0•		o PH2		0	0	_
	Apodized phase contrast (CFI Plan Fluor)	ADH 100X Oil	Oil	1.30	0.16	0.17		√ w/stopper	0			⊚ PH3		0	0	
		Lambda 2X		0.10	8.50	_			0				0	0	Δ	0
		Lambda 4X		0.20	20.00	_			0				0	0	Δ	0
		Lambda 10X		0.45	4.00	0.17		1	0	Δ	0		0	0	Δ	0
		Lambda 20X		0.75	1.00	0.17		1	0	0•	0		0	0	Δ	0
		VC 20X		0.75	1.00	0.17		/	0	0•	0		0	0	0	
		Lambda 40XC		0.95	0.25-0.16 (0.21 *4)	0.11-0.23	1	/	0	•	0		0	0	Δ	0
	Brightfield	Lambda 60XC		0.95	0.21-0.11 (0.15 *4)	0.11-0.23	1	/	0	•	0		0	0	Δ	0
	(CFI Plan Apo)	Lambda 60X Oil	Oil	1.40	0.13	0.17		/	0		0	EXT PH3-60X	0	0	Δ	0
		VC 60XC WI	Water	1.20	0.31-0.28 (0.29 *4)	0.15-0.18	✓	✓	0		0	EXT PH3-60X	0	0	0	
		IR 60XC WI Lambda 100X Oil	Water Oil	1.27	0.18-0.16 (0.17 *4)	0.15-0.19	/	/	0		0	EXT PH3-60X EXT PH3-100X	0	• •	Δ	0
												EXT PH4-100X				
		VC 100X Oil	Oil	1.40	0.13	0.17		✓	0		0	EXT PH3-100X	0	0	Δ	
		NCG 100X Oil	Oil	1.40	0.16	0		✓	0		0	- DI IO	0	0	Δ	_
	Phase contrast	DM Lambda 20X		0.75 0.95	1.00 0.25-0.16 (0.21 *4)	0.17 0.11-0.23	/	<i>/</i>	0	0•	\vdash	©PH2		0	Δ .	0
		DM Lambda 40XC DM Lambda 60XC		0.95	0.21-0.11 (0.15 *4)	0.11-0.23	<i>'</i>	/	0	•		oPH2 oPH2		0	Δ	0 0
	(CFI Plan Apo)	DM Lambda 60X Oil	Oil	1.40	0.13	0.11-0.23		/	0	•	\vdash	oPH3	_	0	Δ	0
		DM Lambda 100X Oil	Oil	1.45	0.13	0.17		/	0	-		oPH3		0	Δ	0
	Super-resolution	IR 60XC WI	Water	1.27	0.18-0.16 (0.17 *4)	0.15-0.19	/	<u> </u>	0		0	EXT PH3-60X	0	•	0	0
	(CFI SR Plan Apo)	IR 60XAC WI	Water	1.27	0.18-0.16 (0.17 *4)	0.15-0.19	/		0		0	EXT PH3-60X	0	0	0	0
	Super-resolution						,									Ť
	(CFI HP Plan Apo)	VC 100X Oil	Oil	1.40	0.13 0.31-0.29	0.17		/	0		0	EXT PH3-100X	0	•	Δ	
	Super-resolution (CFI SR HP Plan Apo)	Lambda S 100XC Sil	Silicone Oil	1.35	(0.30 *4) (23°C) 0.30-0.28 (0.29 *4) (37°C)	0.15-0.19 (23-37°C)	/		٥		0		0	٥	0	İ
		LWD Lambda S 20XC WI	Water	0.95	0.99-0.90 (0.95 *4)	0.11-0.23	/		0	•	0		0	0		0
	Confood (CELAnd)	Lambda S 40XC WI	Water	1.25	0.20-0.16 (0.18 *4)	0.15-0.19	1	/	0		0	EXT PH3-40X	0	0	0	_
	Confocal (CFI Apo)	LWD Lambda S 40XC WI	Water	1.15	0.61-0.59 (0.60 *4)	0.15-0.19	1		0	•	0	EXT PH3-40X	0	0	0	_
		Lambda S 60X Oil	Oil	1.40	0.14	0.17		1	0		0	EXT PH3-60X	0	0	0	
		TIRF 60XC Oil	Oil	1.49	0.16-0.10 (0.12 *4) (23°C) 0.13-0.07	0.13-0.19 (23°C)			0		0	EXT PH4-60X	0	•	Δ	
	Evanescent (CFI Apo)				(0.11 *4) (37°C) 0.16-0.10	0.15-0.21 (37°C)										
		TIRF 100XC Oil	Oil	1.49	(0.12 *4) (23°C) 0.15-0.09	0.13-0.19 (23°C)	/		0		0	EXT PH4-100X	0	0	Δ	ı
					(0.12 *4) (37°C) 0.16-0.10	0.14-0.20 (37°C)										
	Super-resolution (CFI SR HP Apo)	TIRF 100XC Oil	Oil	1.49	(0.12 *4) (23°C) 0.15-0.09	0.13-0.19 (23°C)	-		0		0	EXT PH4-100X	0	0	Δ	ı
					(0.12 *4) (37°C) 0.16-0.10	0.14-0.20 (37°C) 0.13-0.19 (23°C)										
		TIRF 100XAC Oil	Oil	1.49	(0.12 *4) (23°C) 0.15-0.09	0.13-0.19 (23 C) 0.14-0.20 (37°C)	/		0		0	EXT PH4-100X	0	0	Δ	ı
					(0.12 *4) (37°C)	3.22 (0. 5)										_
	Use: Clearing	Model	Immersion	NA	W.D. (mm)	Cover glass thickness	Correction ring	Spring loaded	Brightfield	Darkfield	DIC	Phase contrast	Polarizing	Fluoreso Visible light	ence	NIR
			Water													

П	Use: Clearing	Model	Immersion	NA	W.D. (mm)	Cover glass thickness	Correction ring	Spring loaded	Brightfield	Darkfield	DIC	Phase contrast	Polorizing	Fluorescence			Ti2-E
	Ose. Clearing		IIIIIIeisioii										Folanzing	Visible light	UV	NIR	PFS
1	Multiphoton confocal (CFI Plan Apo)	10XC Glyc	Water, Glycerin, Oil,	0.50	Upright: 5.50 Inverted: 2.00	0-0.17	√ *5		0	0				0		0	
1	Multiphoton (CFI90)	20XC Glyc *7	Glycerin	1.00	8.20	0	✓ *6		△ *8							0	

	Use: Asbestos	Model	Immersion	n NA	W.D. (mm)	Cover glass	Correction	Spring loaded	Brightfield	Darkfield	DIC	Phase contrast	Polarizing	Fluorescence			Ti2-E
			IIIIIII			thickness	ring	Spring loaded	Brightheid	Darkileiu	DIC		Folarizing	Visible light	UV	NIR	PFS
	Dispersion staining (CFI)	R-DS 10X		0.25	7.00	0.17						⊚PH1					
	Dispersion staining (CFI Plan)	C-DS 10X		0.25	13.00	0.17											
	Dispersion staining (CFI Plan Fluor)	R-DS 40X		0.75	0.66	0.17		1				⊚PH2					

Use: Water dipping	Model	Immersion	NA	W.D.	Cover glass	Correction	Spring	Brightfield	Darkfield	DIC	Phase contrast	Polarizing	Fluoresc	ence	Near- infrared	
ose. Water dipping	Wiodei	Illinersion		(mm)	thickness	ring	loaded	Brightheid				Polarizing	Visible light	UV	DIC	
Multiphoton confocal (CFI75 Apo)	25XC W *7	Water	1.10	2.00	0	✓		0	•	0		0	0	0	0	
Widitiphotori Confocal (Ci 173 Apo)	25XC W 1300 *7	Water	1.10	2.00	0	1		0	•	0		0	0	0	0	
DIC (CFI Plan Fluor)	10X W	Water	0.30	3.50	0			0	Δ	0		0	0	0	0	
IR-DIC (CFI Apo)	NIR 40X W	Water	0.80	3.50	0			0	•	0		0	0	Δ	0	
IX-DIC (CITAPO)	NIR 60X W	Water	1.00	2.80	0			0	•	0		0	0		0	
DIC (CFI Plan)	100XC W	Water	1.10	2.50	0	1		0	•	0		0	0		0	
DIC (CFI75)	LWD 16X W *7	Water	0.80	3.00	0			0	•	0		0	0	0	0	

Brightfield/DIC/Fluorescence (visible light) microscopy

 Δ : possible but not recommended

O : suitable

 $\ensuremath{ \odot}$: recommended for best results

Note 7. Polarizing

 Δ : possible but not recommended

O : suitable

 $\ensuremath{\texttt{@}}$: retardation measurement is possible with a polarizing microscope

Note 8. Ti2-E PFS

• : compatible with PFS

*1 With cover glass thickness of 0.9 mm

*2 With cover glass thickness of 1.2 mm

*3 With cover glass thickness of 0.7 mm

4 With cover glass thickness of 0.17 mm $^{}5$ With correction for refractive index of immersion medium (1.33-1.51)

*6 With correction for refractive index of immersion medium (1.44-1.50)

*7 Dedicated for FN1 and Ni-E focusing nosepiece type

*8 Correction wavelength range: from 587nm, can be used as a finder