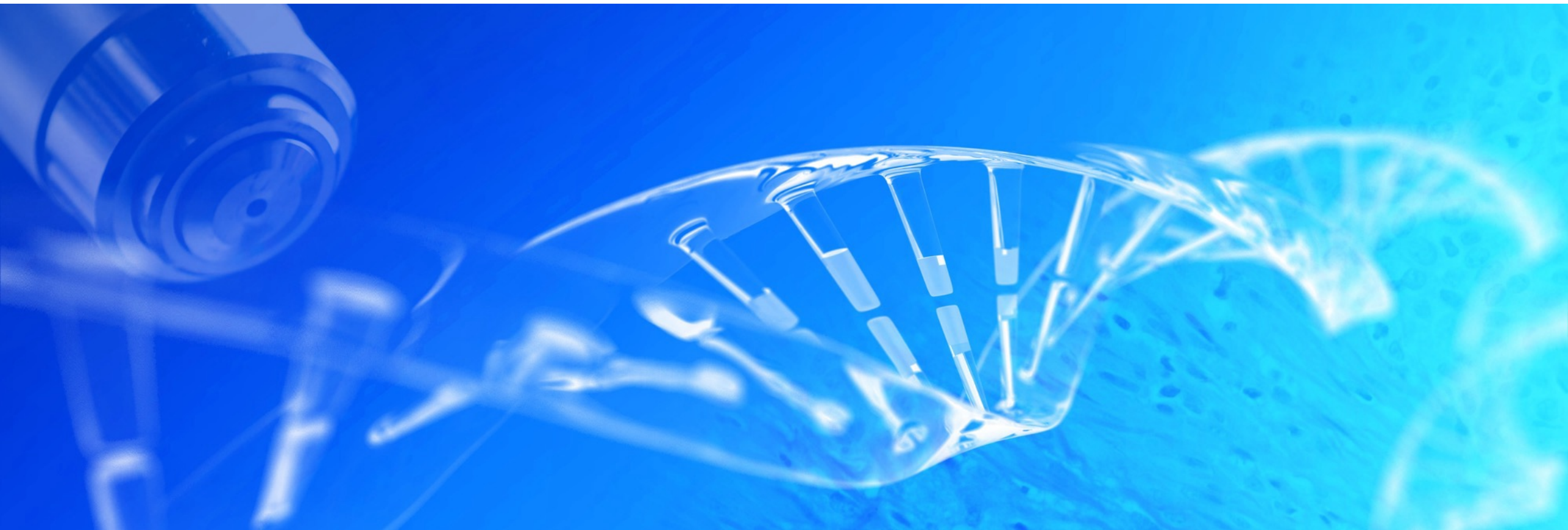


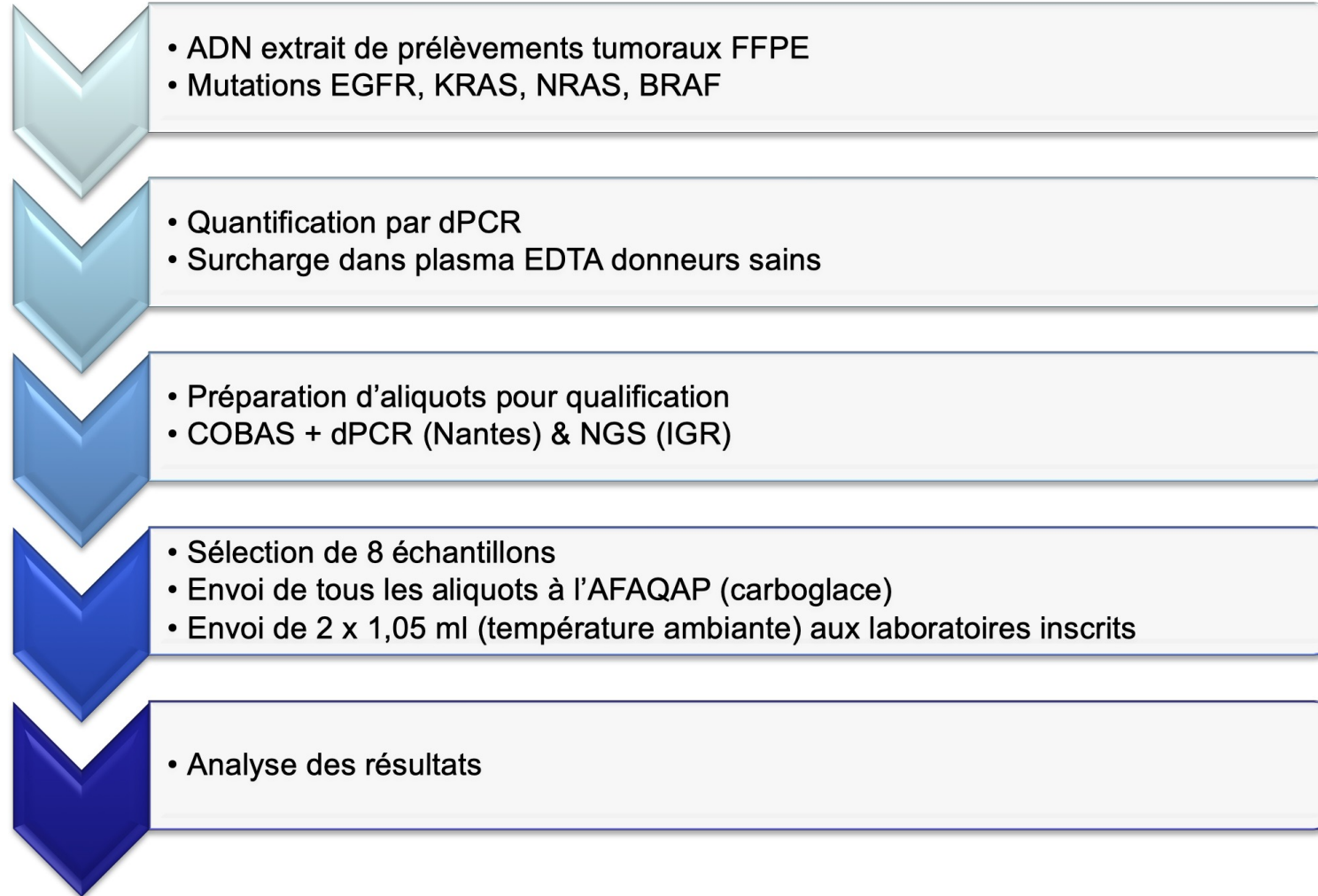
gen&tiss

Programmes nationaux EEQ des examens moléculaires **Campagne 2023**

Réunion de restitution – 13 mars 2024



Campagne ADN tumoral circulant - Organisation générale

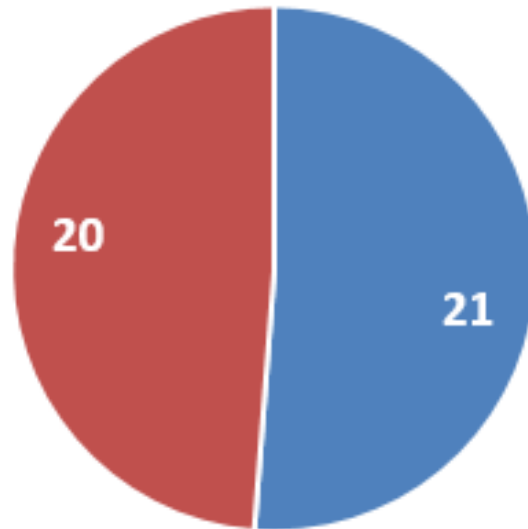


	Inscrits
EGFR	41
KRAS	27
BRAF/NRAS	29

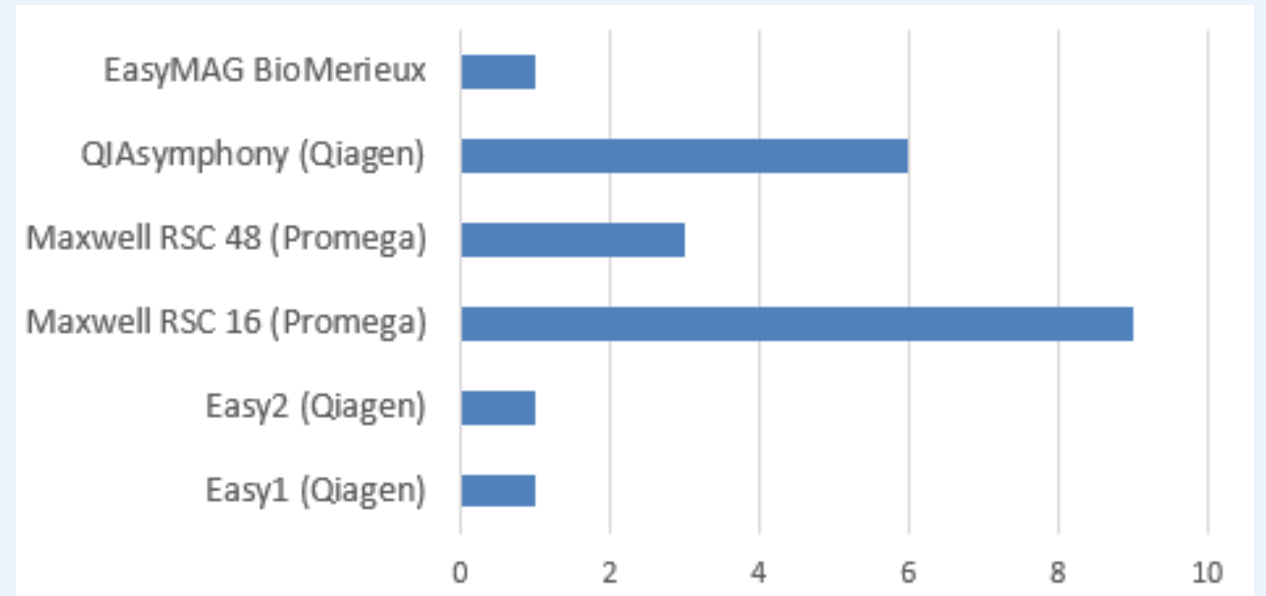
Programme ADN tumoral circulant – génotypes attendus

	EGFR	KRAS	BRAF	NRAS
23.1	c.2300_2308dupCCAGCGTGG; p.Ala767_Val769dup (3,7%)			
23.2	c.2237_2255delinsT; p.Glu746_Ser752delinsAla (6,3%)			
23.3	c.2156G>C; p.Gly719Ala (12,7%)			
23.4	c.2235_2249del; p.Glu746_Ala750del (4,2%)			
23.5		c.37G>T; p.Gly13Cys (1,9%)		
23.6		c.34G>T; p.Gly12Cys (4,4%)		
23.7			c.1799T>A; p.Val600Glu (1,4%)	WT
23.8			WT	c.181C>A; p.Gln61Lys (3%)

Techniques d'extraction – automates utilisés



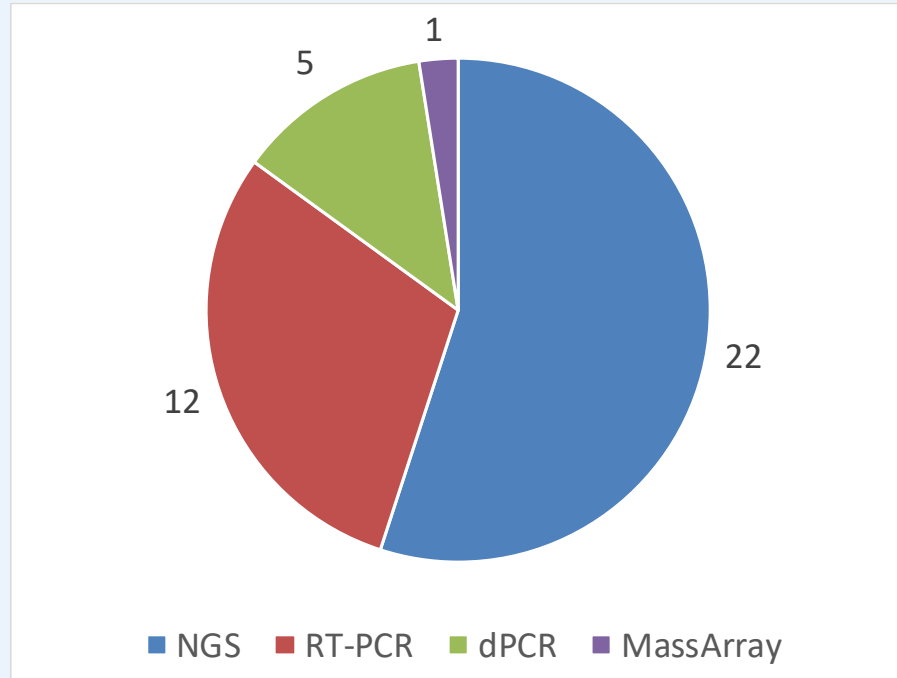
■ Extraction automatisée ■ Extraction manuelle



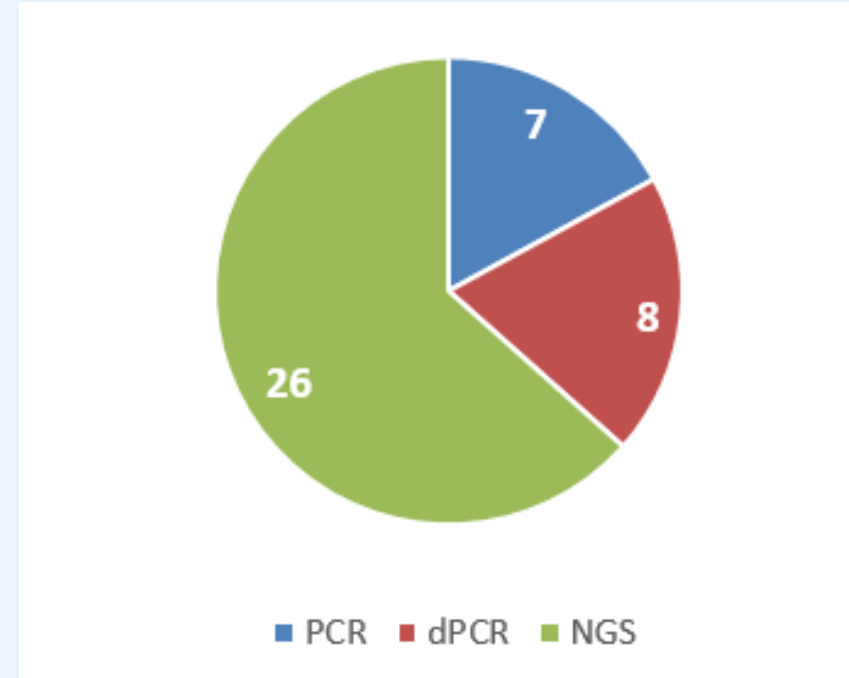
Techniques d'extraction – kits utilisés

Technique	2018	2019	2020	2021	2023
QIAamp Circulating Nucleic Acid Kit (Qiagen)	17	14	16 (+1 mini-elute)	11 (+1 mini-elute + 2 blood)	15 (+2 mini-elute)
COBAS cfDNA (Roche)	9	9	8	7	4
Maxwell RSC (Promega)	8 (2 LV)	10 (3 LV, 3 ccfDNA, 4 ND)	10 (4 LV, 4 ccfDNA, 2 ND)	10 (4 LV, 4 ccfDNA, 2 ND)	11 (2ccfDNA, 9 LV)
EZ1 (Qiagen)	1		1	1	1
MagMax Cell-Free DNA (Life Technologies)	2	2	1	2	1
Qiasymphony circulating DNA kit (Qiagen)	2		1	2	2
AVENIO cfDNA extraction kit			1		
NucleoSpin plasma XS (Macherey Nagel)			1	2	2
EasyMag				1	1
Idylla				1	

Techniques d'analyse utilisées



2021-2022



2023

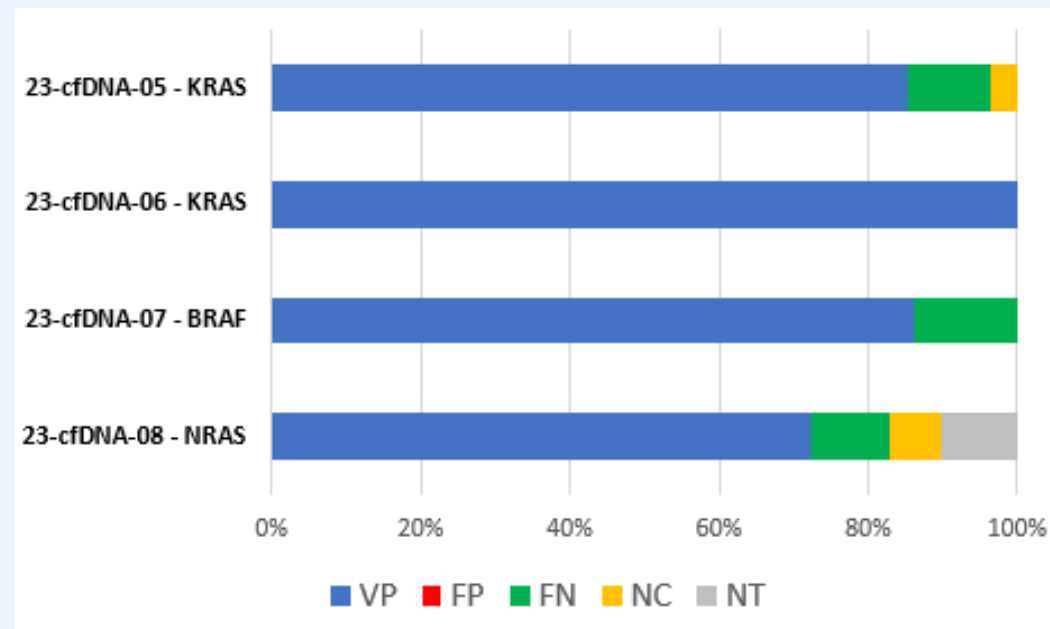
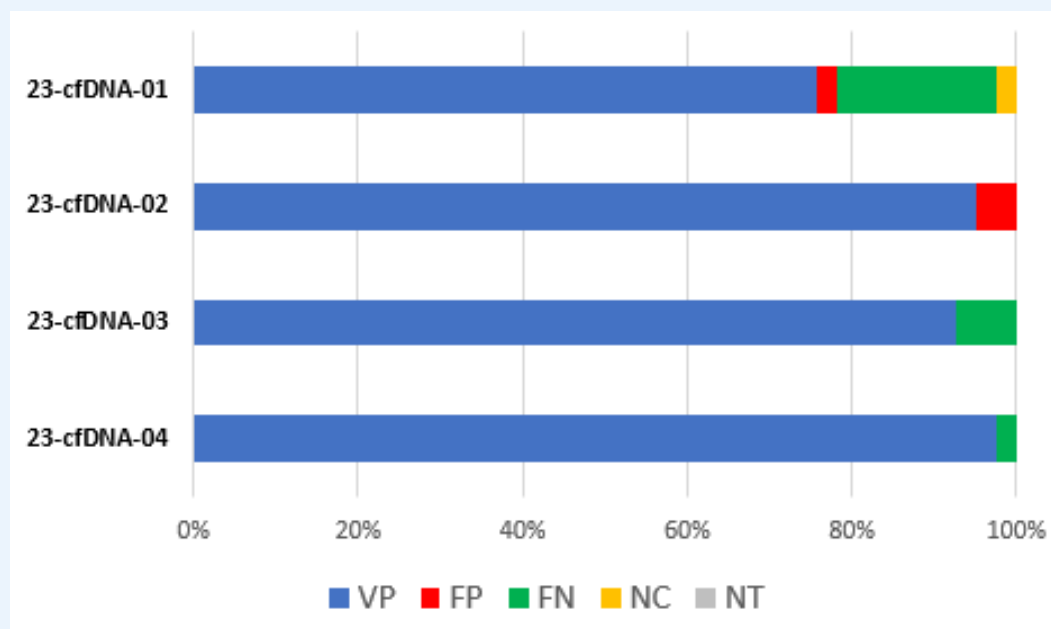
Technologies utilisées (EGFR)

Technologie	Equipement	2018	2019	2020	2021	2023
NGS (16>21>21>22>26)	PGM + Proton	5	4	6	5	2
	S5	4	8	4	7	8
	Genexus				1	2
	Miseq	5	5	6	5	3
	NextSeq	2	2	4	4	6
	GeneReader		1	1		
ARMS (14>12>10>12>7)	COBAS	13	11	9	9	6
	Entrogen	1			1	1
	Therascreen		1	1		
	Pentabase				1	
	Idylla				1	
dPCR (7>4>6>5>8)	ddPCR	3	3	5	4	7
	Stilla	2			1	1
	BEAMing	1	1	1		
	QS3D	1				
Autres		3		2	1	

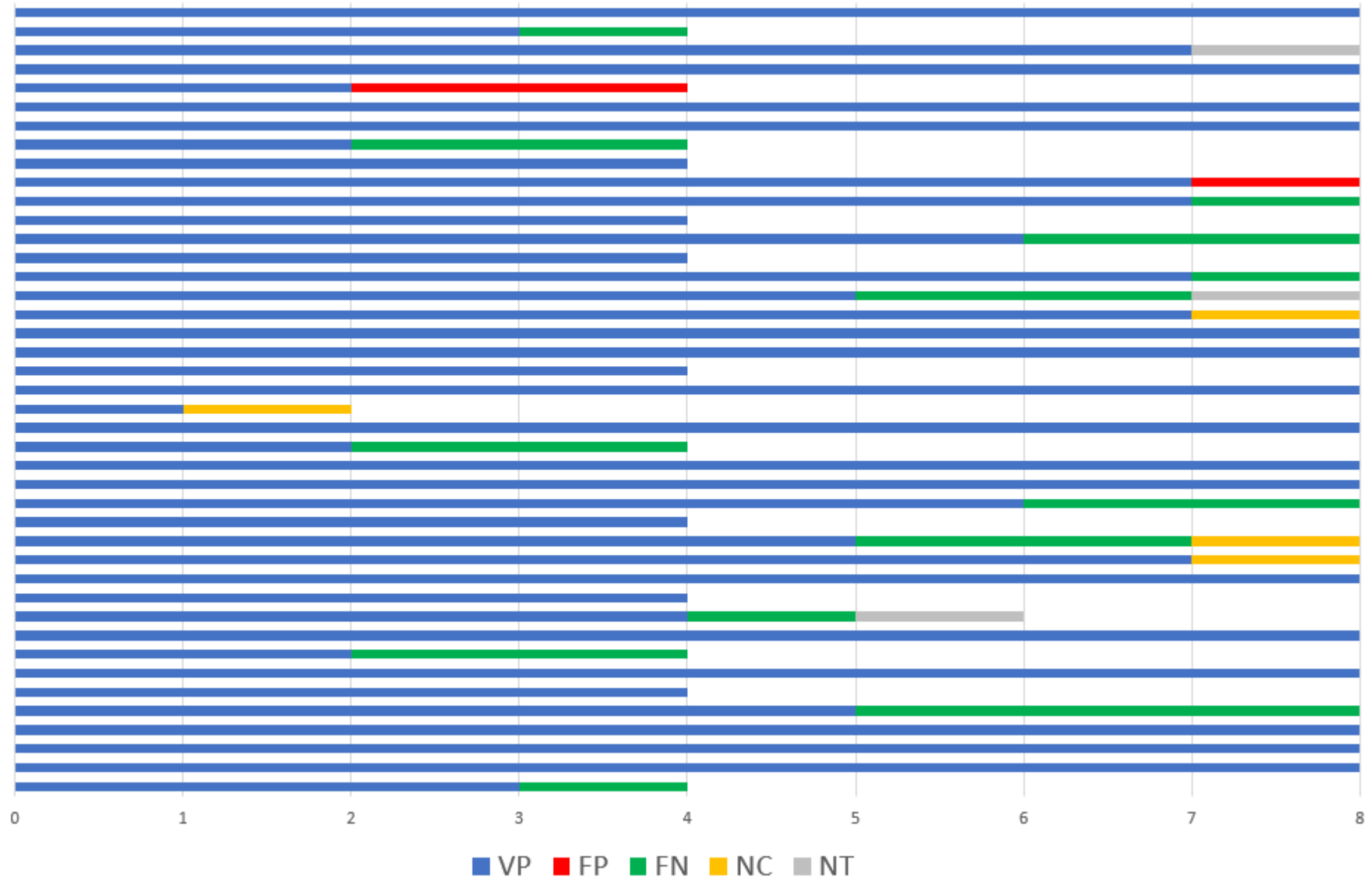
Résultats – Programme ADN tumoral circulant

Echantillon - gène	Altération	Nbre participant inscrits	Nbre participant ayant réussi	% réussite
23-cfDNA-01 – EGFR	p.Ala767_Val769dup	41	31	75,6%
23-cfDNA-02 – EGFR	p.Glu746_Ser752delinsAla	41	39	95,1%
23-cfDNA-03 – EGFR	p.Gly719Ala	41	38	92,7%
23-cfDNA-04 - EGFR	p.Glu746_Ala750del	41	40	97,6%
23-cfDNA-05 - KRAS	p.Gly13Cys	27	23	85,2%
23-cfDNA-05 - KRAS	p.Gly12Cys	27	27	100,0%
23-cfDNA-07 - BRAF	p.Val600Glu	29	25	86,2%
23-cfDNA-08 - NRAS	p.Gln61Lys	29	21	72,4%

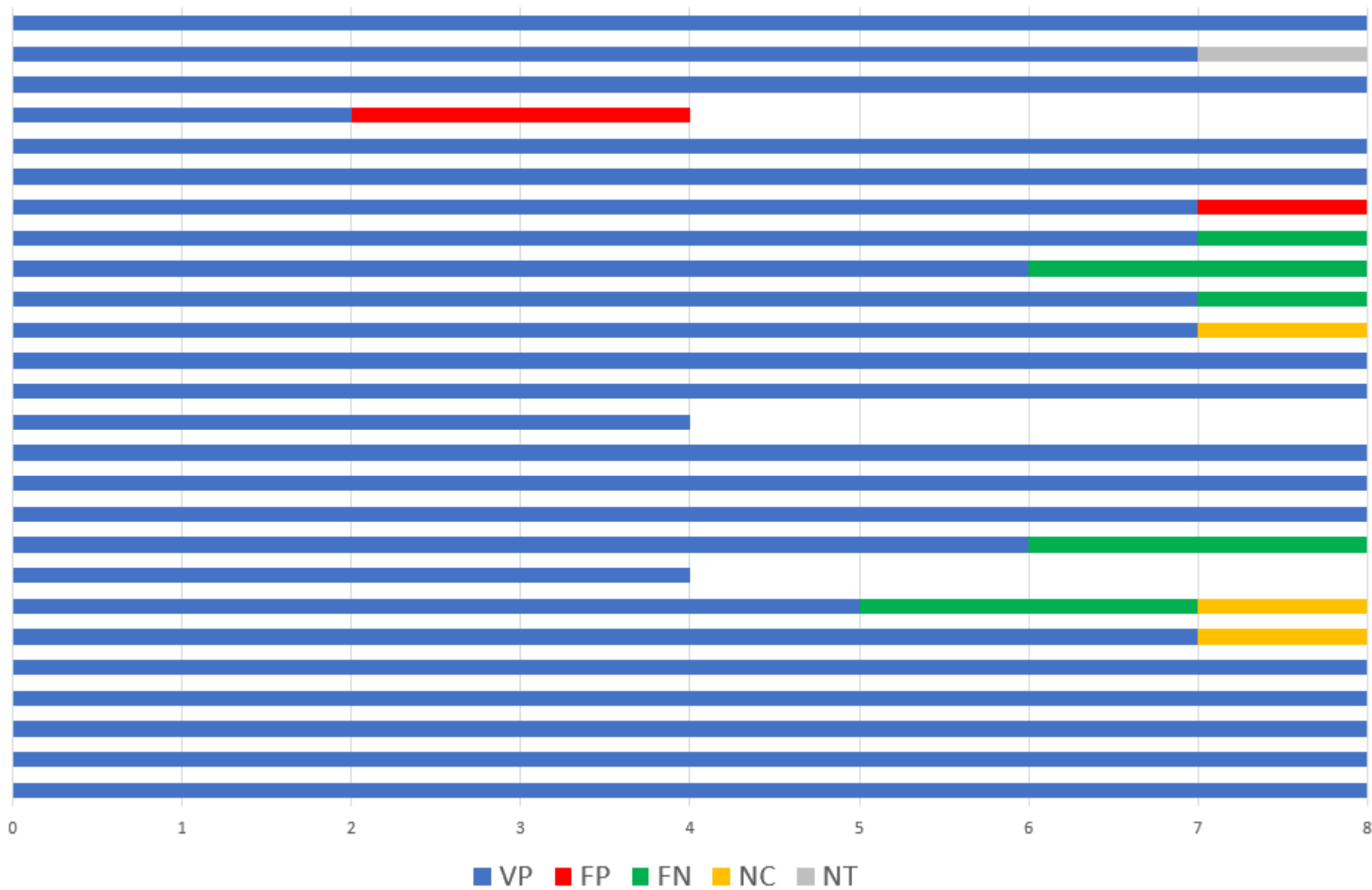
Résultats – Programme ADN tumoral circulant



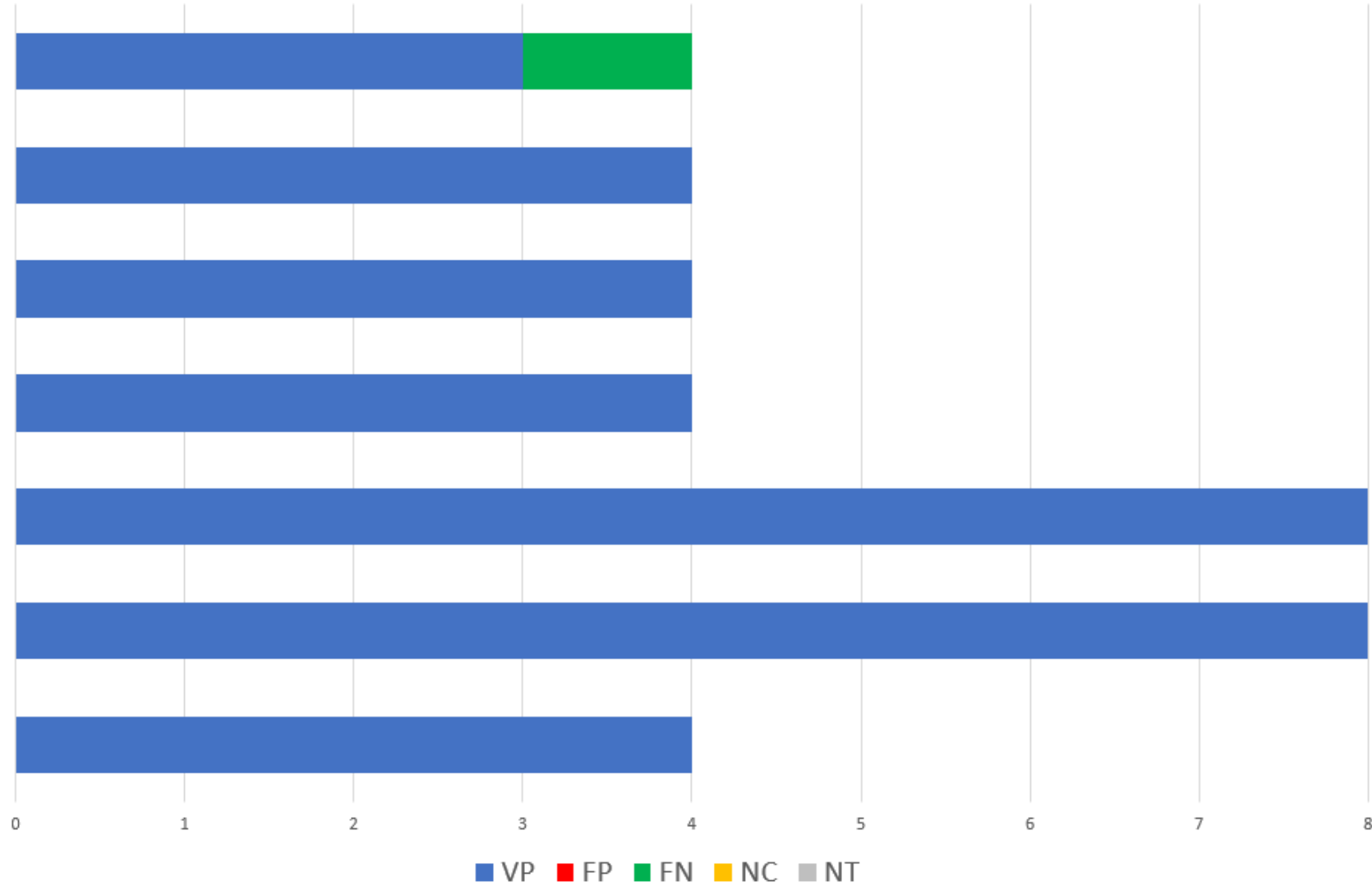
Résultats – analyse par laboratoire



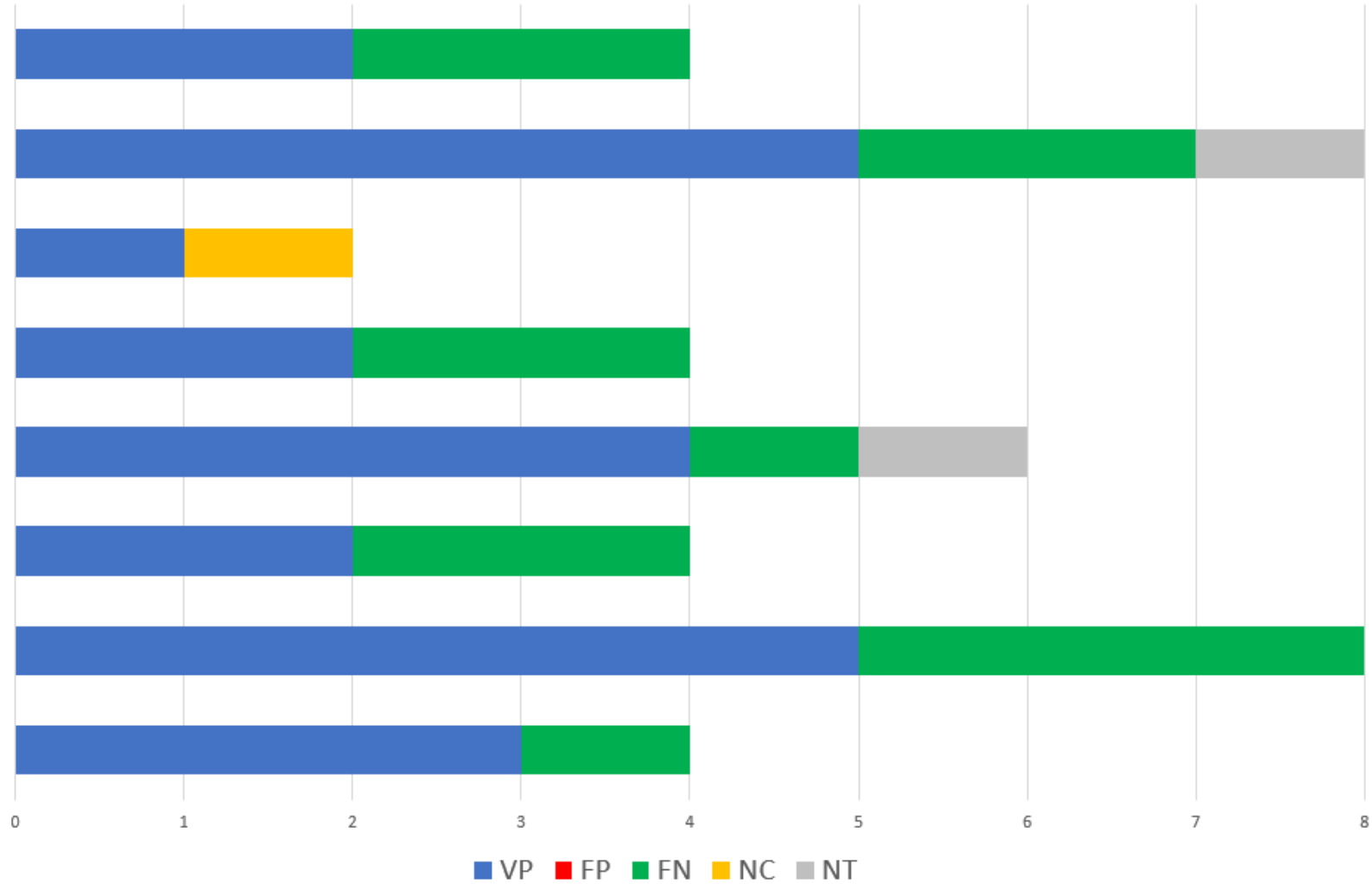
Résultats – NGS (n = 26)



Résultats – PCR (n = 7)



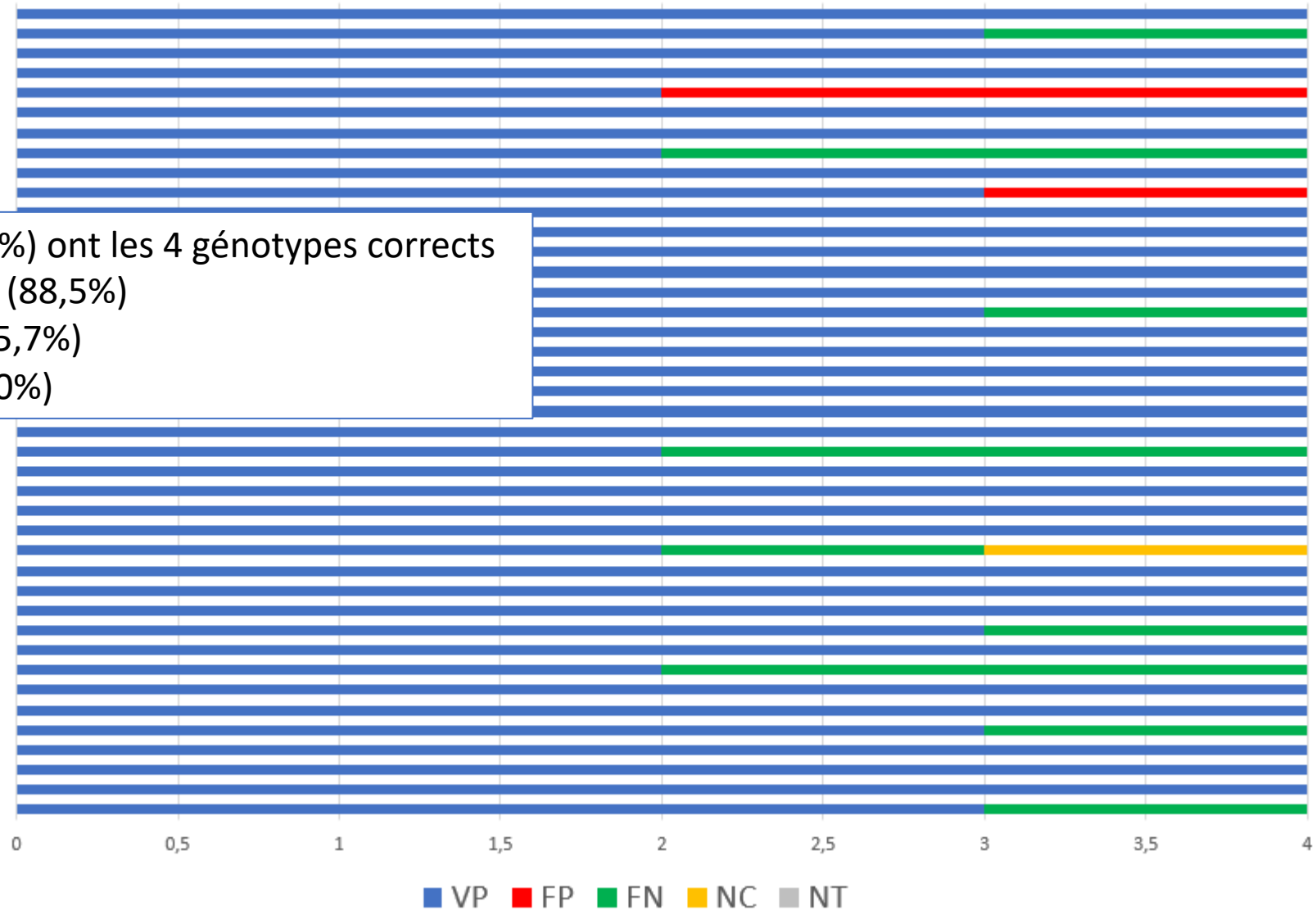
Résultats – dPCR (n = 8)



Focus EGFR

30 laboratoires (73,2%) ont les 4 géotypes corrects

- NGS : 23/26 (88,5%)
- PCR : 6/7 (85,7%)
- dPCR : 0/7 (0%)



Conclusion – Génotypes Programme ADN tumoral circulant

Pour un total de 326 analyses:

Echecs 2023	Echecs 2021/2022
11 EGFR (10 FN, 1 NC)	7 EGFR (7 FN)
4 KRAS (3 FN, 1 NC)	6 KRAS (6 FN)
7 NRAS (1 FP, 3 FN, 3 NC)	6 NRAS (1 FP, 5 FN)
4 BRAF (3 FN, 1 NC)	11 BRAF (11 FN)

Taux d'erreur programme ADN: $26/326 = 8\%$

Au total...

27 labos enregistrés pour les 8 échantillons :

- 16 labos (59,3%) ont 8 génotypes corrects
- 6 labos (22,2%) ont 7 génotypes corrects
- 2 labos (7,4%) ont 6 génotypes corrects
- 3 labos (11,1%) ont 5 génotypes corrects

Perspectives pour 2024

Organisation identique :

- 4 échantillons pour EGFR
- 2 échantillons pour KRAS
- 2 échantillons pour BRAF/NRAS

Période d'envoi : avant l'été ??