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Title:

Upstream process optimization and micro- and macrocarrier screening for large-scale production of the oncolytic H-1 protoparvovirus

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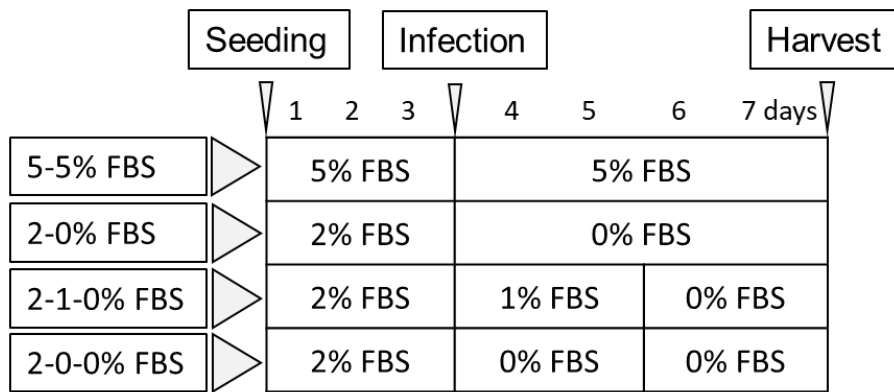


Fig. S1 Overview of process time lines and FBS content using VP-SFM™ medium utilizing nonsimultaneous seeding and infection.

Table S1: Overview of media and supplementations

Basal medium	Medium description	FBS [%]	Gln [mM]
MEM	Full	5	2
	W/o FBS	0	2
	Full Gln	5	5
VP-SFM™	Full	5	4
	Full Gln	5	6
	Cell expansion	2	4
	Infection	1	4
	W/o FBS	0	4

All media were supplemented with 100 U/ml penicillin and 100 µg/ml streptomycin

Table S2: Summary of tested parameters concerning carrier

Parameter	Parameter range
Seeding RPM	0-100
Process RPM	0-100
Carrier density [cm ² /ml]	5-20
Seeding density [cells/cm ²]	5E3 – 4E4
MOI	0.01, 0.05
TOI [day]	0, 3, 6, 9, 13, 16
Bead-to-bead transfer	(+), (-)
Medium exchange at TOI	50%, 100%
Fed batch	(+), (-)

Table S3: Summary of tested medium volumes with different vessels in carrier experiments

System	Scale	Medium volume range [ml]
Plate	24-well	1
Erlenmeyer Flask	125 ml	17.5 - 40
	1 L	150 - 300
	5 L	1500
Spinner flask	250 ml	100
	500 ml	100